



TELEPHONE NUMBER:
BANK 852 (two lines).

Established in
ENGLAND, 1859.]

Registered as a Newspaper.

Published Weekly at 42 CANNON STREET,
LONDON, E.C.

TELEGRAPHIC ADDRESS:
"CHEMICUS LONDON."

Established in
[AUSTRALASIA, 1885.]

No. 1,666. Vol. LXXIX.

DECEMBER 30, 1911.

{Subscription, 10s. per annum, including Diary.
Free the World over. Single Copies, 6d. each.
Winter and Summer Issues 1s. each. Post Free.

The "Allenburys" (TRADE MARK) Jujubes and Pastilles

ELEGANT
EFFICIENT
PALATABLE



The "Allenburys" Jujubes and Pastilles represent the perfection of manufacture, as elaborated by long experience. Purity of ingredient, scientific accuracy, and close attention to every detail in the processes of manufacture, have established for these products an unrivalled position.

Their consistence, delicacy and elegance recommend them to all.

ANISEED LIQUORICE
BLACKBERRY
BLACK CURRANT
DELECTABLE

GLYCERINE and
BLACK CURRANT
GLYCERINE
LICHEN
LIQUORICE

MAGNUM BONUM
PECTORAL
RASPBERRY
RED CURRANT
ROSE

TAMARIND
TANGERINE
VOICE
WILD CHERRY, etc.

Important Notice. Jujubes and Pastilles of special or private formulæ can be made to any particular flavour, colour or shape, providing not less than 56 lbs. be ordered at a time.

The "Allenburys" JUJUBES.

Prices to a/c—2 oz. tins, 4/- per doz.

4 oz. " 8/- "
8 oz. " 12/6 "
1 lb. " 24/- "

Handsome Display Jars
supplied free.

Particulars sent on
application.

The "Allenburys" PASTILLES.

Prices to a/c—2 oz. tins, 4/- per doz.

4 oz. " 8/- "
8 oz. " 12/6 "
1 lb. " 24/- "

The "Allenburys" Medicated Throat Pastilles SUPPLIED IN 77 VARIETIES

Prices to a/c—3 oz. tins, 8/- per doz. ; 8 oz. tins, 14/6 per doz. ; 1 lb. tins, 28/- per doz.

Crystallized Fruit Pastilles	} 1/6 per lb.	Paté de Guimauve Pastilles	...	2/4 per lb.	} Prices to a/c.
Crystallized Malt Pastilles		" " "	" (Cubes)	2/4 "	
		" " "	" (Sheet)	1/10 "	

ALLEN & HANBURYS Ltd., Lombard Street, **LONDON.**

Niagara Falls, N.Y. Toronto. Buenos Aires. Durban. Sydney.

New Year 1912.

Best wishes for your Prosperity.

THE ACKNOWLEDGMENT

On the threshold of Nineteen and Twelve,
Searching keenly for all that requites
For misfortune, you carefully shelve
Many a "brand" that your anger excites;
But you murmur, the deeper you delve—
"Ah well! **EVERYTHING'S RIGHT
THAT IS 'WRIGHT'S'**"



ESSENTIAL OILS. PHARMACEUTICAL PREPARATIONS.
PERFUME CONCENTRATES. "WRIGHT'S COAL TAR SOAP."

WRIGHT, LAYMAN & UMNEY Ltd., LONDON, S.E.

PHOSPH TONIC

The Nerve Tonic Drops.

**Enormous
Sales**



**Excellent
Profits**

MAGNIFICENT SHOWCARD.

A REAL SELLER.

Neatly put up in
Vials and Cartons.

Each Label bears the
Customer's Name & Address.

7½d. size - 3/- per doz.

1/- size - 5/- per doz.



Arthur H. Cox & Co., Ltd.
Manufacturing Chemists, Brighton.

No. 11.

Maw's**S. MAW, SON & SONS**

7 to 12, ALDERSGATE ST.

LONDON, E.C.

**Page.**

Telegraphic Address: "ELEVEN LONDON."

Telephone No.: LONDON WALL 3230 (4 lines).

PREVENT DISAPPOINTMENT BY STOCKING MAW'S BRONCHITIS SHIELDS.

Recommendation will make new customers for Maw's Bronchitis Shield. New customers are always welcome in the Pharmacy. It is just as well they should come to yours.

And they *will* come, because Maw's Shield is a really efficient protection against Bronchitis, and is already selling freely. It is specially designed to protect the base of the throat and the apex of the bronchial tubes. It adds a skin to the skin.

Maw's Bronchitis Shield, made of finest chamois, provides a natural non-conductive protection to just the spot attacked. Each shield in artistic transparent envelope. Price per doz. **16/9.**

"This is where the cold strikes" is

the attractive heading on the salecard

we are supplying with all orders. It will make a strong personal appeal to every sufferer. Placed in the window, this card is neat in appearance and effective in results. Why not let us supply you with this very seasonable line?



Maw's Bronchitis Shields, in artistic transparent envelopes. Per doz. 16/9. Usual Discount.



*This is
where the
cold strikes*

Prevent Bronchitis

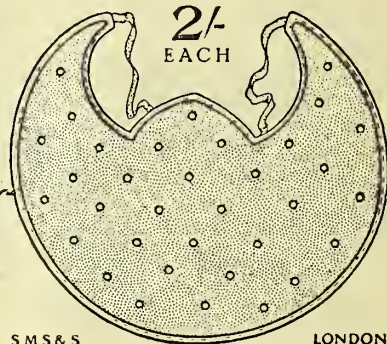
BY WEARING
MAW'S

BRONCHITIS SHIELD

Thoroughly Hygienic and Ventilated
Protects the Vital and Most Exposed
Section of the Throat and Chest
Can be Safely "Left Off" at End of Season.

PRICE

2/-
EACH



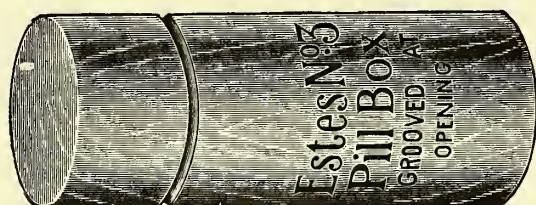
SMS & S

LONDON

Effective Salecard, supplied free with all orders for Maw's Bronchitis Shield. Size 11½ in. by 5½ in.

WHEN ORDERING THE ABOVE, PLEASE MENTION "MAW'S PAGE."

11/30.12.11



Cheapest Boxes of any description made in the World.


ESTABLISHED 1847.

ESTES'

— American Turned —

Wooden Boxes & Wooden Bottles

... FOR ...

PILLS, POWDERS, WAFERS, TABLETS,
DRUGS, CHEMICALS, and LIQUIDS. 

Also Mailing Cases & Syringe Cases.

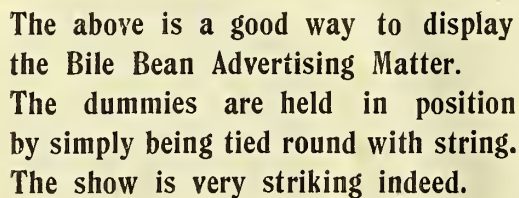
E. B. ESTES & SONS, NEW YORK, MANUFACTURERS.

MAY, ROBERTS & CO.

7, 9, & 11 Clerkenwell Road, London, E.C. **LTD,**
— 16 Westmoreland Street, Dublin. —

SOLE AGENTS FOR THE UNITED KINGDOM.





COOKERY BOOKS. A special edition of our well-known Cookery Book has been printed for the 1911/12 Season. A supply gladly sent to the trade with showcards, &c.

15 GREEK ST., LEEDS.
45 COWCROSS ST., LONDON, E.C.
& 17 South Frederick St., Dublin.

INDEX TO ADVERTISEMENTS IN THIS ISSUE.

The Arabic numerals (1 to 46) in this Index refer to Advertisements in front of the literary pages; the Advertisements following the literary pages are numbered in Roman numerals (i to xxxii)

Page	Page	Page	Page
Allcock's Plasters .....xviii	Cumming, J. W. ....xx	Levermore, A., & Co., Ltd. ....xx	Schmitt & Wildenhayn .....vii
Allen & Hanburys, Ltd. ....Cover	Daisy, Ltd. ....18	Lewis, H. K. ....xxiv	Scholl, C., Manfg. Co., Ltd. ....xx
Allen, Stafford, & Sons, Ltd. 10	Deansmere Manfg. Co. ....xxi	Lister, R. A., & Co., Ltd. ....41	Schutze, F., & Co., Ltd. ....35
Alliance Drug & Chemical Co. xi	Dodge & Olcott Co. ....35	Liverpool Lint Co. ....xii	Sheath Bros. ....xviii
Allison, B. ....Col. Supp.	Duncan, Flockhart & Co. ....19	Liverpool School .....xxii	Shirley Bros., Ltd. ....xxi
Altrincham Rubber Co. ....xxi	Egglossa Manfg. Co. ....38	Lloyd, A. S. ....38	Singleton & Cole .....xxi
Anglo-American Optical Co., Ltd. ....xxv	Electrolytic Alkali Co., Ltd. ....v	Lloyd, A., & Co. ....39	Slack, B. ....Col. Supp.
"Apollo" Liqueur Juice ....xxix	Erasmic Co., Ltd. ....35	Lofthouse & Saltmer ....xxviii	Smith, B. A., & Co. ....ii
Apollinaris Co., Ltd. ....Cover	Estes, E. B., & Sons .....3	London College .....xxii	Smith, T. & H., Ltd. ....29
Arden Press .....Text 950	Eucryl, Ltd. ....20	London & Colonial Manfg. Co. ....xxvi	Smith, Lewis .....v
Atkinson & Barker .....viii	Evans Sons Lescher & Webb, Ltd. ....21	"Lu-Ku" Co. ....xii	"Solazzi" Liqueur Juice ....xxx
Bailey, W. H., & Son, Ltd. ....xii	Exchange Column ....Col. Supp.	McAdam & Tuokniss ....Col. Supp.	Sparks, White & Co. ....x
Baker, P. C. ....Col. Supp.	Farmer, F., & Co. ....xxi	McKesson & Robbins .....31	Spatula, The .....xxlii
Barnett & Foster ....Cover	Fassett & Johnson .....xvi	Macfarlan, J. F., & Co. ....21	Spectacle Makers' Co. ....xxii
Bath & West of England School .....xxii	Fentiman, A. G. ....xx	Mangold, C., & Co. ....21	Stevenson, H., & Sons .....xx
Beecham, T. ....x	Fentiman, A. J., & Co. ....xxi	Mason Bros. & Chapman ....xiv	Stevens, P. A. ....xxv
Bell, J., Hills & Lucas, Ltd. ....xxi	Ferry, T., & Son .....22	Maw, S., Son & Sons .....2	Stipendium Stopper Co. ....xxv
Bennett, E., & Son, Ltd. ....41	Field, C. W. ....xxviii	May, Roberts & Co., Ltd. ....28	Stokes, F. J., Machine Co. ....40
Bennett, Sons & Shears, Ltd. 40	Fink, F., & Co. ....xx	Meffert, H., & Co. ....v	Summer's Typhoo Tea, Ltd. ....xxxi
Berdee & Fish .....Col. Supp.	Fletcher, Fletcher & Co., Ltd. ....Text 950	Meinecke & Co. ....xxiii	Swales, T. ....30
Berkefeld Filter Co., Ltd. ....xxviii	Ford, Shapland & Co. ....23	Merck, E. ....vi	Sylvax Photo Works .....xxv
Berliner, A. ....xvi	Fulford, C. E., Ltd. ....4	Miller, A., & Co. ....xxvii	Tefras Speciality Co. ....37
Betts & Co., Ltd. ....36	Gardner, W., & Sons (Gloucester), Ltd. ....24	Morris, A. G. ....vii	Thermogene Co., Ltd. ....31
Bidwell, Bidwell & Co. ....51	Garthwaite, H. ....xxi	Mumford, G. S., & Sons Text 950	Thompson & Capper .....40
Bing, M., & A. C. ....xxi	Gimber, W., & Son .....xxiii	National Cash Register Co. ....33	Tidman & Son .....36
Birmingham and Midland College of Pharmacy .....xxii	Glasgow School .....xxii	Neave, J. R., & Co. ....xxxi	Tomlinson, T., & Son ....Col. Supp.
Block Light Co., Ltd. ....xxvi	Goodall, Backhouse & Co., Ltd. 20	Newbery, F., & Sons, Ltd. 42	Toogood, W., Ltd. ....xxii
Boake, A., Roberts & Co., Ltd. 11	Griffin, J. J., & Sons, Ltd. ....40	Nitsche & Gunther Optical Co., Ltd. ....43	Tooth's Extract of Meat Co., Ltd. ....xxviii
Boehringer, C. F., & Soehne ....iv	Guest, T., & Co. ....ix	North of England Chamomils Co. ....xxi	Tye, J., & Son .....xv
Boehringer, C. H., Sohn .....vi	Halder, E. C. ....xxi	Oldfield, Pattinson & Co. ....9	Tyler, T., & Co., Ltd. ....v
Botwright & Grey .....xxiii	Halifor Co. ....34	Oppenheimer, Son & Co., Ltd. 30	United Alkali Co., Ltd. ....xxvii
Bowling & Son .....xxvi	Harrison & Waide .....xxv	Orridge & Co. ....Col. Supp.	Valda Pastilles .....xxvii
Bradley & Bourdas .....xiv	Harvey & Co., Ltd. ....xiv	Paine & Co., Ltd. ....ix	Van Horn & Sawtell .....xxi
Brett & Co. ....Col. Supp.	Haynes, G., & Co. ....30	Papier Poudre, Ltd. ....xxi	Varaldi, F. ....34
Bristol-Myers Co. ....v	Haywood, J. H., Ltd. ....30	Perkin, Son & Co., Ltd. ....xxiii	Vernon & Co., Ltd. ....xxv
British Diamond Co., Ltd. ....viii	Henry, T. & W. ....ii	Perkin & Co., Ltd. ....xxiii	Vichy Water .....xxvii
Bronley, H., & Co., Ltd. ....12	Hughes, E. Griffiths .....xx	Pettifer, Stephen, & Sons ....xiv	Viscose Development Co., Ltd. 30
Brown & Son .....xxvi	Huntley Boorne & Stevens, Ltd. ....xxiv	Pindar, J. W., & Co. ....xx	Vittel Water .....xxix
Buchweitz, Bernard .....xxiv	Idris & Co., Ltd. ....26	Poppelreuter, W. ....Text 950	Voss, W., & Co., Ltd. ....xxx
Burge, Warren & Ridgley, Ltd. ....14	Indo Burma Co., Ltd. ....vii	Prestcott & Co. ....xxi	Wander, A., Ltd. ....xxx
Burgoynne, Burdidges & Co. ....13	Isaacs, I., & Co. ....xii	Preston's Liverpool Distillery Co., Ltd. ....34	Ward & Goldstone .....42
Burrough, J., Ltd. ....Text 950	Jeyes' Sanitary Compounds Co., Ltd. ....xv	Raines & Co., Ltd. ....di	Wardale & Co., Ltd. ....xxi
Burroughs Wellcome & Co. ....45	Johnsen & Jorgensen, Ltd. ....xvii	Rajar, Ltd. ....xxiv	Warne, W., & Co., Ltd. ....xxviii
Burt, Boulton & Haywood, Ltd. 10	Johnson & Sons (Mfg. Chts.), Ltd. ....41	Rendell, W. J. ....xvi	Washington Chemical Co., Ltd. ....x
Bush, H. W., & Co., Ltd. ....32	Junora Wine .....xxix	Richard, C. D. ....xx	Wattenbach, O. ....xx
Cadbury Bros., Ltd. ....Cover	Kahn & Co. ....xiv	Riley Bros., Ltd. ....xii	Westminster College .....xxii
Calvert, F. C., & Co., Ltd. ....37	Keating, T. ....xiv	Robare's Aureoline .....34	Whitaker & Co. ....38
Cartwright, W. B., Ltd. ....17	Kent, G. B., & Sons, Ltd. ....51	Robinson, B., & Co. ....xxvii	White, A., & Sons .....vii
Charity, W., & Sons .....x	Kershaw, H. E., Ltd. ....v	Rogers & Co. ....xxv	Widenmann, Brocher & Co. ....viii
Chemist and Druggist, The .....16	Lambert Pharmaceutical Co. ....42	Rueff, Julius .....xx	Williams Bros. & Co. ....xix
Christy T., & Co. ....46, xxi	Le Brasseur Surgical Mfg. Co., Ltd. ....xiv	Salle, H., & Co. ....vi	Willows, Francis, Butler & Thompson, Ltd. ....ii
City of London College .....xxiv		Sanitas Co., Ltd. ....Text 950	Wolff, F., & Sohn .....34
Coles, W., & Co. ....xxviii		Sargol .....ix	Wood, C. E. ....xx
Comet Chemical Co., Ltd. ....xxvi		Schliemann's Oil & Ceresine Co., Ltd. ....39	Wright, Layman & Umney, Ltd. ....Cover
Cornby, Stacey & Co., Ltd. ....iv			Wyeles, Ltd. ....iii
Corry & Co., Ltd. ....xiv			Youldon, E., Ltd. ....xv
Cox, Arthur H., & Co., Ltd. ....1			Zematone Co. ....viii

BUYERS' GUIDE FOR GOODS ADVERTISED IN THE C. & D.

ACETIC ACID
Crown Chemical Works, Ltd.

ADVERTISING
Allison, J. R. B.
Arden Press
Buchweitz, Bernard
Degen, F. A.
Ford, Shapland & Co.
Sattley & Silverlock, Ltd.

AERATED WATERS
Oamwal, Ltd.
Idris & Co., Ltd.
Jewsbury & Brown
Reynolds & Branson, Ltd.

AER-WATER MACHINERY
Barnett & Foster
Flugel & Co.

AER-WATER MATERIALS
Barnett & Foster
Bush, W. J., & Co., Ltd.
Flugel & Co.
Hay, William, Ltd.
Stevenson & Howell, Ltd.

AGAR-AGAR
Allen, Stafford & Sons, Ltd.

AGENCIES, COLONIAL, &c.
Faulding, F. H., & Co.
Indo-Burma Co., Ltd.
Lennon, Ltd.
Peake, Allen & Co.
Sankyo & Co.

AGRI-HORTICULTURAL REMEDIES
Voss, Walter, & Co., Ltd.

AIR CUSHIONS
Burge, Warren & Ridgley, Ltd.
Surgical Hosiery Co., Ltd.

ALKALOIDS
Boehringer, C. F., & Soehne
Boehringer, C. H., Sohn
Burgoyne, Burdidges & Co.
Hoffman-La Roche, Ltd.
Howards & Sons, Ltd.
Macfarlan, J. F., & Co.
Merck, E.
Morson, T. & Son.
Salle, H., and Co.
Smith, T. & H., Ltd.
Zimmermann, C., & Co.

ALMANACKS
Townsend, James, & Sons

ALMOND OIL
Allen, Stafford, & Sons, Ltd.

ALUMINIUM TOP SYPHONS
Lumley, L., & Co., Ltd.

AMMONIA AND SALTS
Brown & Blackburn
Brunner, Mond, & Co., Ltd.
Scrubb & Co., Ltd.
White, A., & Sons

ANÆSTHETICS
Burrongs Wellcome & Co.
Duncan, Flockhart & Co.
Macfarlan, J. F., & Co.
Riedel, J. D., Co.
Smith, T. & H., Ltd.
Zimmermann, C., & Co.

ANNATTO
Fullwood, R. J., & Bland
Tomlinson & Hayward Ltd.
Voss, Walter & Co., Ltd.

ANIMAL THERAPY PRODS.
Brady & Martin, Ltd.

ANTIMONY AND ITS SALTS
Burgoyne, Burdidges & Co.
May & Baker, Ltd.
White, A., & Sons

ANTI RHEUMATIC RINGS
Burge, Warren & Ridgley, Ltd.

ANTISEPTICS
Lambert Pharmaceutical Co.
Macfarlan, J. F., & Co.
Sanitas Co., Ltd.
Zimmermann, C., & Co.

ARTIFICIAL LIMBS
Haywood, J. H., Ltd.
Maw, S., Son & Sons

ASTHMA REMEDIES
Zematone Co.

BACTERIAL VACCINES, &c.
Allen & Hanburys, Ltd.
Duncan, Flockhart & Co.
Evans Sons Lescher & Webb Ltd.
Martindale, W.
Parke, Davis & Co.

BALLROOM-FLOOR POLISH
Ayrton, Saunders & Co., Ltd.
Evans Sons Lescher & Webb
Lofthouse & Saltmer
Woolley, Jas., Sons & Co., Ltd.

BANDAGES
Dalmas, A. de St., & Co.
Maw, S., Son & Sons
Wood, Vincent

BALSAMS
Dodge & Olcott Co.

BAROMETERS
Darton, F., & Co.
Maw, S., Son & Sons

BATH BRICK
Associated Bath Brick Mfrs.

BATH CABINETS
Riley Bros., Ltd.

BATH SALTS
Sangers'

BATHS, MEDICINAL
Roborat Co.

BED AND DOUCHE PAN
Meinecke & Co.

BED PANS
Bush, Henry W., & Co., Ltd.
Evans Sons Lescher & Webb, Ltd.
Maw, S., Son & Sons
Reuter, R. J.

BED SHEETING
Sheath Bros.

BEESEWAX
Schliemann's Oil & Cerosins Co.
Sparks, White & Co., Ltd.

BINOCULARS
Darton, F., & Co.
Raphael's, Ltd.

BLACKS
Williams Bros. & Co.

BODY BELTS
Haywood, J. H., Ltd.
Wood, Vincent

BISMUTH SALTS

Alliance Drug & Chem. Co.
Burgoyne, Burdidge & Co.
Howards & Sons, Ltd.
May & Baker, Ltd.
Morson, T., & Son
Raitmeyer & Co.
Tyrer, T., & Co., Ltd.
White, A., & Sons

BOOKBINDERS

Suttley & Silverlock, Ltd.

BOOKS AND MAGAZINES

Ilford "Photo Manual"
Lewis, H. K.
Martindale's "Extra Phar."
Morland & Impey, Ltd.
Parry's "Food and Drugs"
Sonthall's "Materia Medica"
Spatula Publishing Co.
Squire's "Companion"

BOT POLISH COLOURS

Williams Bros. & Co.

BTANIO DRUGGISTS

Brook, Parker & Co., Ltd.
Newball & Mason
Potter & Clarke, Ltd.

BOTTLES, GLASS

Barnett & Foster
Beaton, Clark & Co., Ltd.
Dowell, John
Ferry, T., & Son
Gaasch, J. B.
"Ideal" Bottle
Isaacs, I., & Co.
Johnson & Jorgensen, Ltd.
Maw, S., Son & Sons
Melin, C., & Co.
Pfeifer, O. A.
"Poisonous" Poison Bottle
Poths, H., & Co.
Swales, Thomas
Yonldon, E., Ltd.

BOXES

Estes, E. B., & Sone
Ford, Shapland & Co.
Harrison & Waide
Robinson & Sons, Ltd.
Rogers & Co.
Stipendum Stopper Co.

BOXES, GREASEPROOF

Rogers & Co.

BRASS WINDOW FITTINGS

Parnall & Sone, Ltd.

BROMINE AND BROMIDES

Howards & Sons, Ltd.
Huskisson, H. O., & Co.
Merok, E.

BRUSHES

Bidwell, Bidwell & Co.
Hovenden, E., & Sons, Ltd.
Kent, G. B., & Sons, Ltd.
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.

BUILDING SITES

North-Eastern Railway

BUTTER COLOURING

Fullwood, R. J., & Bland
Oldfield, Pattinson & Co.
Tomlinson & Hayward, Ltd.

CACHET MACHINE

Clark, Cicero S.

CACHETS

Clark, Cicero S.
Warrick Brothers

CAHOUS

Allen & Hanburys, Ltd.

Potter & Clarke, Ltd.

CAMPBOR

Alliance Drug & Chemical Co.
Howards & Sons, Ltd.
May & Baker, Ltd.

CAPS FOR BOTTLES, &c.

Darter, Wilkinson & Co.
Smith Bros. & Co.
Viscose Co., Ltd. (self-fixing)

CAPSULES (VARIOUS)

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
Betts & Co., Ltd.
British Drug Houses, Ltd., The
Davies, Sons & Co.
Denoual, J., & Co.
Dunoon, Flockhart & Co.
Jeyes' Sanitary Compounds, Ltd.
Lloyd, T. Howard & Co.
Martindale, W.
Mason Bros. & Chapman
Parke, Davis & Co.
Tye, J., & Son
Wander, A., Ltd.
Warrick Bros.
Woolley, J., Sone & Co., Ltd.

CALENDARS

Ford, Shapland & Co.

CAPPING MATERIALS

Viscose Co., Ltd.

CAPSULED PILLS

McKesson & Robbins

CARBOLIC ACID

Alliance Drug & Chem. Co.
Burt, Boulton & Haywood
Calvert, F. C., & Co.
Hoffman-La Roche, Ltd.

CARTONS

Ford, Shapland & Co.
Harrison & Waide
Robinson & Sons, Ltd.

CASH TILLS

Millard Bros., Ltd.
National Cash Register Co., Ltd.

CASTOR OIL

Sparks, White & Co., Ltd.
Varaldi, F.

CAUSTIC SODA

Brunner, Mond & Co., Ltd.

CEMENTS

Kay Bros., Ltd.

CHALK PRECIPITATED

Levermore, A., & Co., Ltd.
Mumford, G. S., & Sons
Nichols Chemical Co., Ltd.
Sturge, John & E., Ltd.

CHAMOIS LEATHER

North of Eng'and Chamois Co.

CHEMICALS

Anglo-Continental Chem. Vks.
Boehringer, O. F., & Soehne
Bramwell, E., & Son
British Drug Houses, Ltd., The
Brunner, Mond & Co., Ltd.
Burgoyne, Burdidge & Co.
Burrroughs Wellcome & Co.
Corbyn Stacey & Co., Ltd.
Crown Chemical Works, Ltd.
Electrolytic Alkali Co., Ltd.
Evans Sons Lescher & Webb Ltd
Griffin, John J., & Sons, Ltd
Hoffmann-La Roche, Ltd.
Howards & Sons, Ltd.
Huskisson, H. O., & Co.
Johnson & Sons (Mfg. Chts.),
Macfarlan, J. F., & Co.
May & Baker, Ltd.
Merok, E.
Morson, T., & Son
Pointet & Girard
Smith, T. & H., Ltd.
Sturge, John & E., Ltd.
Tyrer, T., & Co., Ltd.
Washington Chemical Co., Ltd.
White, A., & Sons
Widenmann, Broicher & Co.

CHEST PROTECTORS

Solport Bros.

Wood, Vincent

CHLORATES, PERCHLO-

RATES

Societe d'Electro-Chimie

CHLORIDE OF LIME

Brunner, Mond & Co., Ltd.
Electrolytic Alkali Co., Ltd.
United Alkali Co., Ltd.

CHLORODYNE

Davenport, J. T., Ltd.
Freeman's Chlorodyne, Ltd.

CHLOROFORM

Alliance Drug & Chem. Co.
Burrroughs Wellcome & Co.
Duncan, Flockhart & Co.
Macfarlan, J. F., & Co.
May & Baker, Ltd.
Morson, T., & Son
Smith, T. & H., Ltd.

CIGARS AND CIGARETTES

Christy, Thos., & Co.
Hovenden, R., & Sons, Ltd.
Singleton & Cole, Ltd.

CITRIC ACID AND CITRATES

British Drug Houses, Ltd., The
Burgoyne, Burdidge & Co.
Howards & Sons, Ltd.
Morson, T., & Son
Sturge, John & E., Ltd.

CLINICAL THERMOMETERS

Burge, Warren & Ridgley, Ltd.
Maw, S., Son and Sons
Perken, Son & Co., Ltd.
Raphael's, Ltd.
Zeal, G. H.

CLINICAL THERMO. CASE

Dowell, John

CLOTH BA LS

O'Neil, Zetts & Co.

Senior, Alf., & Co.

COAL TAR SPECIALITIES

Wright, Layman & Umney, Ltd

COCOA

Oadbury Bros., Ltd.

Sandow, Ltd.

COD LIVER OIL

British Drug Houses, Ltd., The
Charity, W., & Sons
Devold Peder
Jervill & Co.
Möller, Peter, Ltd.
Sparks, Waite & Co. Ltd.
Wright, Layman & Umney, Ltd.

COLLAPSIBLE TUBES

Betts & Co.
Brooks, Peel & Co.

COLOURS, BEVERAGE, &c.

Barnett & Foster
Boake Roberts & Co.
Stevenson & Howell, Ltd.

COLOURS, CHEMICAL

Williams Bros. & Co.

COMBS

Hovenden, R., & Sons, Ltd.
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, Francis & Sons, Ltd.

COMPLEXION LEAFLETS

Sangers

CONDENSERS

Bennett, Sons & Shears, Ltd.

CONFECTIONERY COLOURS

Williams Bros. & Co.

CONTINENTAL PROPS.

Wilcox, Jozeau & Co.

COPPERSMITHS

Braithwaite, H., & Co., Ltd.
Bennett, Sons & Shears, Ltd.

CORKS

Mitchell, N. W., & Sons, Ltd.
Swales, Thomas
Viscose Development Co., Ltd.

CORN EXTERMINATOR

Gardner

CORN PLASTERS

Solport Bros.

COUGH REMEDIES

Valda Pastilles

COUNTER ADJUNCTS

Evans Sons Lescher & Webb Ltd

COUNTER DISPLAY STANDS

London & Colonial Mfg. Co.

COUNTER SPECIALITIES

Allen & Hanburys, Ltd.
British Drug Houses, Ltd., The
Hewlett, C. J., & Sons
Lloyd, T. H., & Co., Ltd.
Lorimer Marshall
Southall Bros. & Barclay, Ltd.
Wright, Layman & Umney, Ltd.

COURT PLASTER

Pharm. Indust. Ges. (Offen-
bach)
Solport Bros.

CREAM OF TARTAR

British Drug Houses, Ltd., The

CREOSOTE

Baiss Bros. & Stevenson, Ltd.
Burt, Boulton & Haywood, Ltd.
Morson, T., & Son

CREPE BANDAGES

Burge, Warren & Ridgley, Ltd.
Gimber, W., & Son
Leslies, Ltd.
Norwich Crepe Co. (1856), Ltd.
Wood, Vincent

CYANIDES

May & Baksr, Ltd.

DAIRY SPECIALITIES

Fullwood, R. J., & Bland
Oldfield, Pattinson & Co.

DENTAL MECHANICS

Cullwick H. E.
Fentiman, A. G.
Fentiman, A. J., & Co.
Garthwaite, H.
Halder, E. O.
Smith, J. S.
Wardale & Co.

DEVELOPERS

Express Developing Co.

DEXTRINE

Fink, F., & Co.

DIGESTIVE PRODUCTS

Armon & Co., Ltd.
Benger's Food, Ltd.
Fairchild Bros. & Foster
Parke, Davis & Co.
Squire & Sons
Widenmann, Broicher & Co.
Zimmermann, O., & Co.

DENTIFRICES

Bash & Co.
Beecham, T.
Bell (John), Hills & Lucas, Ltd.
Blackie, Robert
Calvert, F. C., & Co.
Christy, T., & Co.
Cook, E., & Co., Ltd.
Euoryl, Ltd.
Jewsbury & Brown
John Strange Winter
Knox, Walker, J., & Co.
Lambert Pharmacal Co.
McKesson & Robbins (Inss)
Mason Bros. & Chapman
Maw, S., Son & Sons
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Riedel, J. D., & Co.
Sangers
Standard Tablet & Pill Co., Ltd.
Woolley, J., Sons & Co., Ltd.

DEVELOPERS (PHOTO)

Griffin, John J., & Sons, Ltd.
Johnone & Sons (Mfg. Chts.)

DIABETIC FOODS

Brusson Jeune
Van Abbot, G., & Sons

DISINFECTANTS

Baiss Bros. & Stevenson, Ltd.
Burt, Boulton & Haywood, Ltd.
Calvert, F. C., & Co.
Condy & Mitchell, Ltd.
Cook, E., & Co., Ltd.
Jeyes' Sanitary Compds., Ltd.
Sanitas Co., Ltd.
Tomlinson & Hayward, Ltd.
Willows, Franoe B. & T.
Wright, Layman & Umney, Ltd.

DOUCHES

Maw, S., Son & Sons
Reuter, R. J.

DRUGGISTS' SUNDRIES

Ayrton, Saunders & Co., Ltd.
Barclay & Sons, Ltd.
Berliner, Arthur
Burge, Warren & Ridgley, Ltd
Bush, H. W., & Co., Ltd.
Christy, T., & Co.
Edwardes, W., & Son
Evans Sons Lescher & Webb, Ltd.
Hovenden, R., & Sons, Ltd.
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Poths, H., & Co.
Quelch, H. C., & Co.
Reuter, R. J.
Sangers
Schutze, F., & Co., Ltd.
Solport Bros.
Southall Bros. & Barclay, Ltd.
Swales, Thomas
Toogood, W., Ltd.
Wattenbach, O.
Woolley, J., Sons & Co., Ltd.

DRUGS, CRUDE

Baiss Bros. & Stevenson, Ltd.
Brook, Parker & Co., Ltd.
Gathergood's Exor.
Goodall, Backhouse & Co.
Horner & Sone
Potter & Clarke, Ltd.
Ransom, W., & Son
Schmitt & Widenhahn
Sparks, White & Co., Ltd.

DYES

Crawshaw, E., & Co.
Judson, Daniel & Son
Whitaker & Co. (Hat)

DYEWARES

Clemons, Marshall & Carbert

EAU DE COLOGNE

Farina, J. M.
Farina, J. M. (No. 4)
Farina, Johann Maria
Pickus, Courtnay & Co.
McCracken, J. & R.
Schutze, F., & Co., Ltd.
Van Oppen Ross & Co.

EAU DE COLOGNE SOAP

Van Oppen Ross & Co.

EFFERVESCENT PREPS.

Bishop, Alfred, Ltd.
Bristol-Myers Co.
Guest, Thos., & Co.
Lloyd, T. Howard & Co.
Wright, Layman & Umney, Ltd.

ELASTIC HOSIERY

Ayrton, Saunders & Co., Ltd.
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Surgical Hosiery Co., Ltd.
Wood, Vincent

EDUCATIONAL INSTITUTES

Bath & West of England College
Birmingham & Midland College
City of London College
College of Preceptors
Glasgow School of Pharmacy
Liverpool School of Pharmacy
London College of Pharmacy
North of England School
Northern College of Pharmacy
South of England College
Westminster College

ELASTIC GUM INSTS.

Mason Bros. & Chapman

ELECTRICAL NOVELTIES

Ward & Goldstone

EMBROCATIONS

Ayrton, Saunders & Co., Ltd.

EMERY AND CLOTH

Oakey, J., & Son, Ltd.

EMULSIFIERS

Bennett, Sons & Shears, Ltd.

EMULSIONS, C. L. O. & C.

Ayrton, Saunders & Co., Ltd.
Baies Bros. & Stevenson, Ltd.
British Drug Houses, Ltd., The
Burgoyne, Burbidges & Co.
Parke, Davis & Co.

ENEMAS

Burge, Warren & Ridgley, Ltd.
Maw, S., Son & Sons
Newbery, F., & Sons, Ltd.
Warne, W., & Co., Ltd.

EPSOM SALTS

Corbyn, Stacey & Co., Ltd.
Howards & Sons, Ltd.

ESSENCES, CONCRETE

Lautier Fils

ESSENCES, SOL. AND FRUIT

Alliance Drug and Chem. Co.
Barnett & Foster
Boake Roberts & Co., Ltd.
Bush, W. J., & Co., Ltd.
Hay, Wm., Ltd.
Lautier Fils
London Essence Co.
Newball & Mason
Stevenson & Howell, Ltd.

ETHERS

Baies Bros. & Stevenson, Ltd.
Duncan, Flockhart & Co.
Howards & Sons, Ltd.
Macfarlan, J. F., & Co.
May & Baker, Ltd.
Tyrer, T., & Co., Ltd.
White, A., & Sons

EUCALYPTUS OIL

British Drug Houses, Ltd., The

EXTRACT OF HERBS

Newball & Mason
Potter & Clarke, Ltd.

EXTRACTS (MEDICINAL)

Allen, Stafford & Sons, Ltd.
Evans Sons Lescher & Webb, Ltd.
Gathergood Exor.
Hewlett, C. J., & Son, Ltd.
Parke, Davis & Co.
Ransom, W., & Son

FACTORY SITES

North-Eastern Railway
Great Western Railway

FEEDING BOTTLES

Bush, Henry W., & Co., Ltd.
Evans Sons Lescher & Webb, Ltd.
Horlick's Malted Milk Co.
Hovenden, R., & Sons, Ltd.
Maw, S., Son & Sons
Renter, E. J.
Sangers'

FILTERS

Berkefeld Filter Co., Ltd.

FOODS, INVALID, ETC.

Allen & Hanbury, Ltd.
Bell (John), Hills & Lucas, Ltd.
Benger's Food, Ltd.
Brand & Co., Ltd.
Burgoyne, Burbidges & Co.
Cox, Arthur H., & Co., Ltd.
Fairchild Bros. & Foster
Horlick's Malted Milk Co.
"Lemco and Oxo"
Lofthouse & Saltmer
Menley & James, Ltd.
Natural Food Co., Ltd.
Neave, Josiah R., & Co.
Theinhardt's Food Co.
Turtle Cup (1911), Ltd.
Wander, A., Ltd.
Willows, Francis, B. & T.

FULLER'S EARTH

Mumford, G. S., & Sons

FUMIGATORS

Sanitas Co., Ltd.

FLESH GLOVES, STRAPS, & C.

Reuter, R. J.

Solport Bros.

FLYCATCHERS

Alabastine Co. (British), Ltd.
Deanswore Manfg. Co.
Ford, Shapland & Co.
Kay Bros., Ltd.
Smith, J. H., & Co.
Tunbridge & Wright

FURNITURE POLISH

Elvee Company

GLAUBER'S SALT

Bramwell, E., & Son
Howards & Sons, Ltd.

GLYCERINE

Meffert, Hermann & Co.

Price's Patent Candle Co., Ltd.

GLYCEROPHOSPHATES

Merck, E.
Pointet & Girard
Reitmeyer & Co.

GOLD PAINT

Judson, D., & Son

GRINDERS, DRUG, & C.

Allen, Stafford & Sons, Ltd.
Goodall, Backhouse & Co.
Willows, Francis, B. & T.

GRIPE WATER

Woodward, W., Ltd.

GUMS

Fink, F., & Co.
Kidston, W. M., & Co.

HAIR DYES

Blackie, Robert
Harker, Stagg & Morgan, Ltd.
Osborne, Garret & Co.

HAIR PREPARATIONS?

Anglo-Continental Trading Co.
Chesebrough Manfg. Co.
Edwards' "Harlene" Co.
Egglossa Manfg. Co.
Harker, Stagg & Morgan, Ltd.
Harrison, G. W.
Herpioide Co.
John Strange Winter
Odol Chemical Works
Osborne, Garret & Co.
Robare's Aureoline
Softo Manfg. Co.
Vibert, F.
Warner Oliver, Ltd.

HAT CLEANERS

Christy, Thos. & Co.
Senior, Alf., & Co.

HAT DYES

Judson, D., & Son
Knox, Walker J., & Co.
Whitaker & Co.

HAY FEVER REMEDY

Lu-Ku Co.

HEATING APPARATUS

Clark's Syphon Stove Co., Ltd.
Rajar, Ltd.
Richmond Gas Stove & Meter

HERBS

Brook, Parker & Co., Ltd.
Pannett & Neden
Potter & Clarke, Ltd.
Ransom, W., & Son

HOMOEOPATHIC MEDICINES

Ashton & Parsons, Ltd.
Keene & Asbwell, Ltd.

HOTELS

Esmond Hotel
Kingsley Hotel
Thackeray Hotel

HOT-WATER BOTTLES, & C.

Bailey, W. H., & Son
Berliner, Arthur
Burge, Warren & Ridgley, Ltd.
Galen Manfg. Co., Ltd.
Maw, S., Son & Sons
Schutze, F., & Co., Ltd.
Sheath Bros.
Southall Bros. & Barolaw
Wood, Vincent

HYPOPHOSPHITES

May & Baker, Ltd.
Tyrer, T., & Co., Ltd.
Hydrogen Peroxide
May & Baker, Ltd.
Sanitas Co., Ltd.
Tyrer, T., & Co., Ltd.

ICHTHYOL

Ichthyol Gesellschaft

INHALERS

Burroughs Wellcome & Co.
Maw, S., Son & Sons
Sanitas Co., Ltd.

INK POWDERS

Williams Bros & Co.

INSECT POWDER

Keating, Thomas

INSECTICIDES

Christy, Thos. & Co.

Tomlinson & Hayward, Ltd.

INSTEP SUPPORTS

Scholl, C. Manfg. Co.

IODINE RESUBLIMED

Howards & Sons, Ltd.

Huskisson, H. O., & Co.

IRISH MOSS

Cumming, J. W.

Salle, H., & Co.

ITROSYL

Fletcher, Fletcher & Co.

JARS AND POTS

Dowell, John
Johnsen & Jorgensen, Ltd.

Maw, S., Son & Sons

Melin, C., & Co.

Ifeifer, O. A.

Reuter, R. J.

Stipendium Stopper Co.

JELLOIDS

Jelloid Co.

JUJUBES

Guest, Thos., & Co.
Potter & Clarke, Ltd.

JUNIPER BERRIES

Seligsohn, E.

JUNKET POWDER

Armour & Co., Ltd.

LAMPS

Block Light Co., Ltd.

LANOLINE

Burroughs Wellcome & Co.

LARD

Ewen, J., & Sons

LAVERANDER OIL

Zimmermann, C., & Co.

LAVERANDER WATER.

Maddocks & Co.

LEATHER DYES

Williams, Bros. & Co.

LECITHIN

Chem. Works "Victoria."

Salle, H., & Co.

Williams, G. M., & Co., Ltd.

LIME JUICE AND CORDIAL

Evans Sons Lescher & Webb Ltd.
Goodall, Backhouse & Co.
Idris & Co., Ltd.

LINSEED, CRUSHED, & C.

Mumford, G. S., & Sons

LINTS

Liverpool Lint Co.
Maw, S., Son & Sons
Robinson & Sons, Ltd.

Taylor, W. G.

LIQUORICE JUICE

Apollo
Evans Sons Lescher & Webb Ltd.
Horne & Sons
Jackson, E. E.

Mumford, G. S., & Sons
Solazzi

LIQUORS, CONC, & C.

Fletcher, Fletcher, & Co.
Hewlett, C. J., & Son
Robinson, B., & Co.

Wyleys, Ltd.

LITHIA SALTS

British Drug Houses, Ltd., The
May & Baker, Ltd.

LOAFERS

Internal. Sponge Importers, Ltd.
Solport Bros.

LOOSE-LEAF LEDGERS

Moore's Modern Methods
Morland & Impey, Ltd.

LOZENGES

Ayrton, Saunders & Co., Ltd.
Denoual, J., & Co.
Guest, Thos. & Co.

Jackson, E. E.
Potter & Clarke, Ltd.

Raines & Co.

Standard Tablet & Pill Co., Ltd.
Warrick Bros.

MACHINERY, PHARMACAL:

Allen & Hanbury, Ltd.
Bennett, E., & Son, Ltd.

Bennett, Sons & Shears, Ltd.

Comet Chemical Co., Ltd.

Gardner, Wm., & Sons, Ltd.

Griffin, J. J., & Sons, Ltd.

Lister, R. A., & Co., Ltd.

Pindar, J. W., & Co.

Stokes, F. J., Machine Co.

Wilkinson, S. W., & Co.

MAGNESIA AND ITS PREPS.

British Drug Houses, Ltd., The
Corbyn, Stacey & Co., Ltd.
Henry, T. & W.

Howards & Sons, Ltd.

May & Baker, Ltd.

Phillips, Chas. H., Chem. Co.

Washington Chemical Co., Ltd.

MARKING INK

Brooks, Tom

Hickisson, A. (Bond's)

Williams Bros. & Co.

MALT EXTRACT & PREPS.

British Diamalt Co., Ltd.
British Drug Houses, Ltd., The
Burroughs Wellcome & Co.
Davies, Sons & Co.
Evans Sons Lescher & Webb

METAL GOODS

Betts & Co., Ltd.

MEAT EXTRACTS

Armour & Co., Ltd.
Brand & Co., Ltd.
"Lemco and Oxo"
Tooth's Extract of Meat Co.
Turtle Cup (1911), Ltd.

MECHANICAL SHOW**FIGURES**

Bush, Henry W., & Co., Ltd.

MEDICINE CASES

Parke, Davis & Co.

MENTHOL SNUFF

Christy, T., & Co.

Shirley Bros., Ltd.

MERCURIALS

Alliance Drug & Chem. Co.
Howards & Sons, Ltd.

May & Baker, Ltd.

Tyrer, T., & Co., Ltd.

METHYLATED SPIRIT

Burrough, J., Ltd.
Macnair, A., & Co.

Preston's Liverpool Distillery,

Randall & Son, Ltd.

MICROSCOPES

Raphaele, Ltd.

MINERAL WATERS, SALTS

Apollinaris Co., Ltd.
Hughes, E. Griffiths

Ingram & Royle, Ltd.

Vichy (State Springs)

Vittel

MIXERS AND S'FTERS

Comet Chemical Co., Ltd.
Gardner, Wm. & Sons (Glen-

cester), Ltd.

MUSTARD PLASTERS

Rueff, Julius

NIGHT LIGHTS

Prescott & Co.

OILS, MINERAL, FATTY

Allen, Stafford & Sons, Ltd.
Price's Patent Candle Co.

Sohliemann's Oil & Ceresine Co.

Stern Sonneborn Oil Co., Ltd.

OILS, ESSENTIAL

Allen, Stafford & Sons, Ltd.
Alliance Drug & Chemical Co.

Boake, A., Roberts & Co., Ltd.

Bush, W. J., & Co., Ltd.

Delvendahl & Kuntzel

Dodge & Oleott Co.

Evans Sons Lescher & Webb, Ltd.

Lautier Fils

London Essence Co.

Poppelreuter, W.

Ransom, W., & Son

Schimmel & Co.

Stevenson & Howell, Ltd.

Varaldi, F.

Wright, Layman & Umay, Ltd.

Zimmermann, Chas. & Co.

ointment MILLS

Wilkinson, S. W., & Co.

ointments

Blackie, Robert
Burgess, E.
Calvert, F. C., & Co.

Cox, Arthur H., & Co.

Oldfield, Pattinson & Co.

Pent Products (Sphagnum), Ltd.

Smith, Maurice

Zimmermann, Chas., & Co.

olive OIL

PALATINOLIDS

Oppenheimer, Son & Co., Ltd.

PATENT AGENT

Barker, R. W.

PHOTO. POSTCARDS

Rajar, Ltd.

PACKED GOODS

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
Blackie, Robert
Boulton, James & Co. (1909)
Brook, Parker & Co., Ltd.
Cox, Arthur H., & Co., Ltd.
Christy, Thos., & Co.
Davies, Sons & Co.
Evans Sons Lescher & Webb, Ltd.
Goodall, Backhouse & Co.
Harker, C. R., Stagg & Morgan
Knox, Walker J., & Co.
Lloyd, T. Howard, & Co.
Lorimer Marshall
May, Roberts & Co., Ltd.
Newball & Mason
Oldfield, Pattinson & Co.
Potter & Clarke, Ltd.
Sangers'
Shirley Bros., Ltd.
Standard Tablet & Pill Co., Ltd.

PASTILLES

Allen & Hanburys, Ltd.
Asche, C. F., & Co.
Burroughs Wellcome & Co.
Denoual, J., & Co.
Evans Sons Lescher & Webb, Ltd.
Guest, Thos., & Co.
Valda Pastilles
Warrick Bros.

PEPPERMINT OIL

Bing, M. & A. O.

PERFUME MATERIALS

Bush, W. J., & Co., Ltd.
Delvendahl & Kuntzel
Horner & Sons
Lautier Fils
Naef, M., & Co., Succrs.
Sohimmel & Co.
Schwarz, A. W.
Valardi, F.
Wright, Layman & Umney, Ltd.
Zimmermann, C., & Co.

PERFUMES

Allen & Hanburys, Ltd.
Atkinson, J. & E., Ltd.
Baiss Bros. & Stevenson, Ltd.
Barclay & Sons, Ltd.
Bronnley, H., & Co., Ltd.
Bush, W. J., & Co., Ltd.
Christy, T., & Co.
Erasmie Co., Ltd.
Evans Sons Lescher & Webb, Ltd.
Halifax Co.
Hewlett, C. J., & Son
Hovenden, R., & Sons, Ltd.
John Strange Winter
Lescol Perfumery Co.
McCracken, J. & R.
Newbery, F., & Sons, Ltd.
Piver, L. T.
Queloh, H. O., & Co.
Rivers, Hill & Co., Ltd.
Southall Bros. & Barclay, Ltd.
Vinolia Co.
Warrick Bros.
West, T., & Son
Wolf, F., & Sohn

PESSARIES (SOLUBLE)

Burge, Warren & Ridgley, Ltd.
Rendell, W. J.

PETROLEUM JELLY

Chesebrough Mfg. Co.
Gardner & Andrew
Schliemann's Oil & Ceresine Co.
Stern, Sonneborn Oil Co., Ltd.

PHOTO. CHEMICALS

Boehringer, C. F., & Soehne
Griffin, John J., & Sons, Ltd.
Johnson & Sons (Mfg. Chts.), Ltd.
Reitmeyer & Co.

PHOTO. GOODS

Barclay & Sons, Ltd.
Burroughs Wellcome & Co.
Evans Sons Lescher & Webb, Ltd.
Express Developing Co.
Ilford Ltd.
Kent, G. B., & Sons, Ltd.
Lennon, Ltd.
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Oppenheimer, Son & Co., Ltd.
Sylvax Photo Works.

PHOTO. RUBBER GOODS, &c

Altrincham Rubber Co.

"PLASTIC MODELS

Knox, Walker (J.), & Co.

POSTAL BOXES

Robinson & Sons, Ltd.

PLASTERS

Alcock Mfg. Co.
Berliner, Arthur
Dalmás, A. de St., & Co.
Leslies, Ltd.

PILL MAKERS

Allen & Hanburys, Ltd.
Asche, C. F., & Co.
British Drug Houses, Ltd., The
Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Howards & Sons, Ltd.
Lloyd, T. Howard, & Co.
Standard Tablet & Pill Co., Ltd.
Wand Manfg. Co.
Wyleys, Ltd.

PLEATED PAPER

Darter, Wilkinson & Co.
Smith Bros. & Co.

"POISON" BAND

Dowell, John

POLISHES (VARIOUS)

Oakley, J., & Sons, Ltd.

POSTERS

Ford, Shapland & Co.

PRINTERS

Ford, Shapland & Co.
Harrison & Waide
Suttley & Silverlock, Ltd.
Townsend, J., & Sons

PRINTING PRESS

Paragon Press Co.

PROPRIETARY ARTICLES

Ashton & Parsons, Ltd.
Barclay & Sons, Ltd.
Baecham, T.
Bow's Linament, Ltd.
British Drug Houses, Ltd., The
Burgess, E.
Chameleon Oil Co., Ltd.
Christy, T., & Co.
Clark, Cicero S.
Crimson Cross Dispensary
Daisy, Ltd.
Danyas Virns, Ltd.
Davenport, J. T., Ltd.
Edwards, W., & Son
Evans Sons Lescher & Webb, Ltd.
Faulding, F. H., & Co.
Fellows' Med. Mfg. Co.
Fennings, Alfred
Ferris & Co.
Fox & Co. (Liverpool), Ltd.
Freeman's Chlorodyne, Ltd.
Fulford, O. E., Ltd.
Goodall, Backhouse & Co.
Harrison, Geo. W.
Henry, T. & W.
Hughes, E. Griffiths
Ichthol Gesellschaft
Kay Bros., Ltd.
Kntnow, S., & Co., Ltd.
Lalor's Phosphodyne
"Lemco" and "Oxo"
Lofthouse & Saltmer
"Ln-Kn" Co.
Maekenzie's Cure Depot
Martindale, W.
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Oppenheimer, Son & Co., Ltd.
Owhridge, W. T., Ltd.
Phillips, Chas. H., Chem. Co.
Resinol Chemical Co.
Richter, C., & Co.
Riedel, J. D., Co.
Sangers'
Sargol, Ltd.
Schimmel & Co.
Scott & Bowne, Ltd.
Smith, Lewis
Squire & Sons
Standard Tablet & Pill Co., Ltd.
Tefras Speciality Co., Ltd.
Thermogene Co., Ltd.
Thompson & Capper
Tunbridge & Wright
Ucal Works
Urillao Syndicate
Valda Pastilles
Wander, A., Ltd.
Warner Oliver, Ltd.
Warrick Brothers
Wilcox, Jozeau & Co.
Williams, G. M., & Co., Ltd.
Wright, Layman & Umney, Ltd.
Zimmermann, C., & Co.

PUFFS

Solport Bros.

PULVILLÆ

Warrick Bros.

PULVERETTES

Oppenheimer, Son & Co.

PUMPS

Berkeley Filter Co., Ltd.

QUININE AND SALTS

Alliance Drug & Chem. Co.
Boehringer, C. F., & Soehne
Burroughs Wellcome & Co.
Corbyn, Stacey & Co., Ltd.
Howards & Sons, Ltd.
Pointet & Girard

RECIPES

Brooks, Tom

RESIN AND RESINOIDS

Allen, S., & Sons, Ltd.
Morson, T., & Son
Ransom, W., & Son
Smith, T. & H., Ltd.

RENNET

Fulwood, R. J., & Bland
Oldfield, Pattinson & Co.

RESPIRATORS

Zimmer & Co.

RUBBER GOODS

Berliuer, Arthur
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Le Brasseur Surg. Mfg. Co.,
Maw, S., Son & Sons
Surgical Hosiery Co., Ltd.
Tompkins, James, Ltd.
Warne, W., & Co., Ltd.

RUBBER STAMPS

Richford, C. D.

SACCHARIN

Saccharin Corporation, Ltd.

SAMPLE CASES

Aeane, Thomas

SANITARY TOWELS

Bush, H. W., & Co., Ltd.

Southall Bros. & Barclay, Ltd.

SANTONIN

Smith, B. A., & Co.

SAPONIN

Field, C. W.

SAUCES

Goodall, Backhouse & Co.

SCALE PREPARATIONS

Morson, T., & Son

SCIENTIFIC APPARATUS

Reynolds & Branson, Ltd.

SEA SALT

Tidman & Son, Ltd.

SEALS, ADVERTISING

Dennis & Ludlam

SEEDS

Potter & Clarke, Ltd.

SERUMS AND ANTITOXINS

Allen & Hanburys, Ltd.

Evans Sons Lescher & Webb, Ltd.

Parks, Davis & Co.

Richter, C., & Co.

Schimmel & Co.

Wilcox, Jozeau & Co.

SHARES

McAdam & Tuckniss

SHELLAC

Kershaw, H. E., Ltd.

SHEEP DIPS

Burt, Boulton & Haywood

Tomlinson & Hayward, Ltd.

SHEEP MEDICINES

Pettifer, Stephen, & Sons

SHOT FITTING

Lytton-Graham, Ltd.

Bowling & Son

Cook, George

Evans Sons Lescher & Webb, Ltd.

Grant, D.

Josephs, Philip & Sons, Ltd.

London & Colonial Mfg. Co.

Maw, S., Son & Sons

Paruall & Sons, Ltd.

Rudduck & Co.

Sangers'

Southall Bros. & Barclay, Ltd.

SHOULDER STRAPS

Wood, Vincent

SOAP MATERIALS

Armour & Co., Ltd.

SODA FOUNTAINS

Flugel & Co.

SODIUM BICARBONATE

Brunner, Moud & Co., Ltd.

Electrolytic Alkali Co., Ltd.

Howards & Sons, Ltd.

Mumford, G. S., & Sons

SPARKLETS

Aerators, Ltd.

SODIUM PERBORATE

Prescott & Co.

SPECTACLES

Botwright & Grey

Darton, F., & Co.

Maw, S., Son & Sons

Nitsche & Gunther Op., Co., Ltd.

Raphael's, Ltd.

SOAPS, TOILET, &c.

Allen & Hanburys, Ltd.

Armour & Co., Ltd.

Bell, John Hills & Lucas, Ltd.

Bronnley, H., & Co., Ltd.

Calvert, F. C., & Co.

Chesebrough Mfg. Co.

Christy, Thos., & Co.

Cook, E., & Co., Ltd.

Erasmie Co., Ltd.

Evans Sons Lescher & Webb, Ltd.

Fulford, C. E., Ltd.

Hendrie & Co.

Hovenden, R., & Sons, Ltd.

John Strange Winter

Lambert Pharmacal Co.

Lescol Perfumery Co.

Oakley, J., & Son, Ltd.

Pears, A. & F., Ltd.

Peat Products (Sphagnol), Ltd.

Piver, L. T.

Price's Patent Candle Co.

Resinol Chemical Co.

Vinolia Co., Ltd.

Wolf, F., & Sohn

Wright, Layman & Umney, Ltd.

SPICES

Goodall, Backhouse & Co.

SPIRIT OF WINE

Burrough, J., Ltd.

Preston's Liverpool Distillery

SPITTOON, PORTABLE

Martindale, W.

SPONGE BAGS

Sangers'

SPONGES

Internl. Sponge Importers, Ltd.

Maw, S., Son & Sons

Sangers'

SPRAYS

Burge, Warren & Ridgley, Ltd.

Burt, Boulton & Haywood, Ltd.

Hovenden, R., & Sons, Ltd.

Maw, S., Son & Sons

Parke, Davis & Co.

Rogers, Frank A.

Sangers'

Toogood, Wm., Ltd.

SPRINKLER CORKS

Betts & Co., Ltd.

Brooks, Peel & Co.

SPRUCE BEER

Hobson, Joseph, & Son

STARCH

Mumford, G. S., & Sons

Wood, Chas. E.

STILLS

Bennett, E., & Son, Ltd.

Bennett, Sons & Shears, Ltd.

Brown & Son (Automatic)

Stokes, F. J., Machine Co.

STOPPERS

Fletcher, Fletcher & Co.

Stipendum Stopper Co.

SUPPOSITORIES

Anglo-Continental Chem. Works

Cox, Arthur H., & Co., Ltd.

Peat Products (Sphagnol), Ltd.

SURGICAL APPLIANCES AND DRESSINGS

Allen & Hanburys, Ltd.

Bailey, W. H., & Son

Berliuer, Arthur

Burroughs Wellcome & Co.

Bush, W. H., & Co., Ltd.

Dalmás, A. de St., & Co.

Galen Mfg. Co., Ltd.

Gimher, W., & Son

Haynes, G., & Co.

Haywood, J. H., Ltd.

Liverpool Lint Co.

Macfarlan, J. F., & Co.

Martindale, W.

Mason Bros. & Chapman

Maw, S., Son & Sons

Queloh, H. C., & Co.

Reynolds & Branson, Ltd.

Robinson & Sons, Ltd.

Surgical Hosiery Co., Ltd.

Taylor, W. G.

Warne, W., & Co., Ltd.

Wood, Vincent

Woolley, J., Sons & Co., Ltd.

SYNTHETIC REMEDIES

Anglo-Continental Chem. Works

Boehringer, C. F., & Soehne

Boehringer, C. H., Sohn

Hoffmann-La Roche, Ltd.

Reitmeyer & Co.

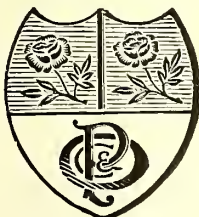
Riedel, J. D., Co.

Widenmann Broicher & Co.

SYRUPS, MEDICINAL

Fellows' Med. Mfg. Co.

- GYPHONS**
Aerators, Ltd.
Barnett & Foster
Camwal, Ltd.
Idris & Co., Ltd.
- GYRINGS, HYPODERMIC**
Burroughs Wellcome & Co.
Maw, S., Son & Sons
- SYNTHETIC PERFUMES**
Boehringer, C. F., & Soehne
Bush, W. J., & Co., Ltd.
Crown Chemical Works, Ltd.
Delvendahl & Kuntzel
Naef, M., & Co., Sucers.
Schwarz, A. W.
Wright, Layman & Umney, Ltd.
Zimmermann, C., & Co.
- TABLETS, COMPRESSED**
Allen & Hanburys, Ltd.
Asche, C. F., & Co.
Bishop, Alfred, Ltd.
British Drug Houses, Ltd., The
Cartwright, W. B., Ltd.
Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Duncan, Flockhart & Co.
Jackson, E. E.
Johnson & Sons (Mfg. Uhts.), Ltd.
Lloyd, T. Howard, & Co.
Martindale, W.
Parke, Davis & Co.
Southall Bros. & Barclay, Ltd.
Standard Tablet & Pill Co., Ltd.
Thompson & Capper
Wand Manfg. Co.
- TABLET MACHINERY**
Allen & Hanburys, Ltd.
Bennett, Sons & Shears, Ltd.
Griffin, John J., & Sons, Ltd.
Thompson & Capper
Wilkinson, S. W., & Co.
- TABLOID PRODUCTS**
Burroughs Wellcome & Co.
- TEA (TANNIN-LESS)**
Sumner's Typhoo-Tea, Ltd.
- TELESCOPES**
Darton, F., & Co.
- TIN BOX MAKERS**
Goodall, Backhouse & Co.
Huntley, Boorne & Stevens
Shirley Bros., Ltd.
- THERMOMETERS**
Perken, Son & Co., Ltd.
- TINCTURE PRESS**
Lister, R. A., & Co., Ltd.
- TOOTH STOPPING**
Stevens, P. A.
- TOBACCO**
Singleton & Cole, Ltd.
- TOILET ARTICLES**
Allen & Hanburys, Ltd.
Armour & Co., Ltd.
Ayrton, Saunders & Co., Ltd.
Bash & Co.
Beetham, M., & Son
Blackie, Robert
Boulton, James & Co. (1908)
Bronnley, H., & Co., Ltd.
Burroughs Wellcome & Co.
Chesebrough Mfg. Co.
Christy, T., & Co.
Cook, E., & Co., Ltd.
Daggett & Ramesell
Daisy, Ltd.
Edwards' Harlene Co.
Elite Toilet Co.
Erasmo Co., Ltd.
Euoryl, Ltd.
Farmer, F., & Co.
Fulford, C. E., Ltd.
Halford Co.
Harker, Stagg & Morgan, Ltd.
Holden & Co.
Hovenden, R., & Sons, Ltd.
John Strange Winter
Knox Walker, J., & Co.
Laotie Ferments, Ltd.
Lloyd, A., & Co.
Lloyd, A. S. (Hovenden)
Lorimer Marshall
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Osborne, Garrett & Co.
Quelch, H. C., & Co.
Papier Poudre, Ltd.
Parke, Davis & Co.
Piver, L. T.
Rivers, Hill & Co., Ltd.
Sangers
Softo Manfg. Co.
Solport Bros.
Standard Tablet & Pill Co., Ltd.
Velix Toilet Co.
Vinolia Co.
Warner Oliver, Ltd.
Woolley, J., Sons & Co., Ltd.
- TARTARIC ACID**
British Drug Houses, Ltd., The
Boehringer, C. H. Sohn
- TOILET PAPER**
Ayrton, Saunders & Co., Ltd.
Ford, Shapland & Co.
Townsend, J., & Sons
- TRADE-MARKS AGENTS**
Barker, R. W.
Ford, Shapland & Co.
- TROPELS**
Wyley's, Ltd.
- TRUSSES**
Bailey, W. H., & Son
Coles, William, & Co.
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Wood, Vincent
Woolley, J., Sons & Co., Ltd.
- TUBERCULINS**
Duncan, Flockhart & Co.
- TURNED WOOD BOXES**
Estes, E. B., & Sons
Rogers & Co.
- VACUUM PANS**
Bennett, E., & Son, Ltd.
Bennett, Sons & Shears, Ltd.
Stokes, F. J., Machine Co.
- VALUERS**
Baker, P. C.
Berdoe & Fish
Brett & Co.
Orridge & Co.
Tomlinson, T., & Son
- VAPORIZERS**
Evans Sons Lescher & Webb
Ltd.
Sanitas Co., Ltd.
- VASELINE**
Chesebrough Mfg. Co.
- VENICE TURPENTINE**
Kahn & Co.
- VETERINARY REMEDIES**
Chesebrough Mfg. Co.
Corry & Co., Ltd.
Day & Sons (Crewe), Ltd.
Edwards, W., & Son
Harvey & Co. (Dublin), Ltd.
Lloyd, T. Howard & Co.
Pettifer, Stephen, & Sons
Tomlinson & Hayward, Ltd.
Wyleys, Ltd.
Zimmermann, C., & Co.
- VERMIN-KILLERS**
Battle, Son & Maltby
Dancey Virus, Ltd.
Evans Sons Lescher & Webb, Ltd.
Farmer, F., & Co.
Harker, Stagg & Morgan, Ltd.
Harrison, G. W.
Kay Bros., Ltd.
- VETERINARY INSTRUMENTS**
Lloyd, T. Howard, & Co.
Mason Bros. & Chapman
Maw, S., Son & Sons
- VINEGAR**
Grimble & Co.
- WATER STILL**
Stokes, F. J., Machine Co.
- WATERS, CONCENTRATED**
Robinson, B., & Co., Ltd.
- WAXES**
Kidston, W. M., & Co.
Schliemann's Oil & Ceresine Oil
- WEED-KILLERS**
Burt, Boulton & Haywood
Harrison, G. W.
Tomlinson & Hayward, Ltd.
- WEIGHING MACHINES**
Maw, S., Son & Sons
Parnall & Sons, Ltd.
Southall Bros. & Barclay, Ltd.
- WINDOW BRACKETS**
Ayrton-Graham, Ltd.
- WINDOW DISPLAY STAND**
London & Colonial Mfg. Co.
- WINDOW SIGNS**
Raphael's, Ltd.
- WINES**
Burrough, J., Ltd.
Junora, Ltd.
Robinson, B., & Co., Ltd.
- WINES, MEDICATED**
Ayrton, Saunders & Co., Ltd.
Burrough, J., Ltd.
Burroughs, Wellcome & Co.
Fletcher, Fletcher & Co., Ltd.
Hobson, Joseph, & Son
Idris & Co., Ltd.
- WOOD STAINS**
Williams Bros. & Co.
- WRIST STRAPS**
Solport Bros.
- ZINC OXIDE**
Baies Bros. & Stevenson
Hubbuck, T., & Son, Ltd.



1912.

Sincerest Good Wishes
for a Prosperous New Year
to all Pharmacists
from
Oldfield, Pattinson & Co., Manchester.

To our friends in the Drug Trade
all the world over,
Greeting.

We wish you all a
Prosperous New Year
and look forward, not
only to a continuance
of, but an increase in
our pleasant business
relations.

Solid & Liquid
Extracts,
Essential Oils,
Drugs, Spices,
Medicinal
Herbs,
Almond Oil,
Fine
Pharmaceutical
Preparations.

Stafford Allen & Sons, Ltd.,



Cowper St.,
Finsbury, London,
and
Long Melford,
Suffolk.

NEW YEAR 1912.

**A. Boake Roberts
& Co., Ltd.,
STRATFORD, LONDON, E.**

The Manufacturers of
"Trufruit" Flavouring Extracts.

For
PURITY, HIGHEST CONCENTRATION,
SOLUBILITY, and Delicacy of Flavour.

With the New Year

Try the newest of

BOAKE ROBERTS' ESSENCES

"Trufruit" Flavouring Extracts.

SPECIAL

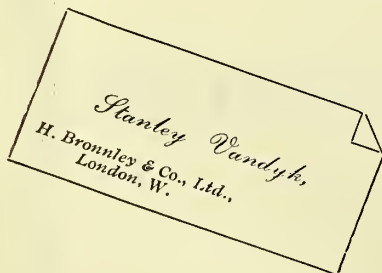
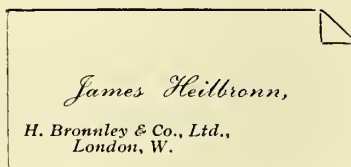


AWARDS.

We received
14 AWARDS including
TWO GRANDS PRIX
and **FOUR GOLD MEDALS**

To our FRIENDS the Wide World o'er
We Wish THE BEST of
ALL GOOD THINGS.

H. BRONNLEY & CO. LTD.,
ACTON VALE :: LONDON, W.



OMAR KHAYYAM	}	22/-	40/-	90/-	per doz. nett.	
PERFUME		2/9	5/-	11/6	per bottle.	
VIOTTO PERFUME		14/10	28/7	55/-	103/6	198/- per doz. nett.
" "		1/8	3/2	6/-	11/9	22/6 per bottle.
HAVANITA PERFUME		17/8	33/-	59/6	112/6	per doz. nett.
" "		2/3	4/3	7/6	14/6	per bottle.

SCIENTIA



DILIGENTIA

BURGOYNE, BURBIDGES & CO

send hearty greetings
to their friends in the
Drug trade all over
the world and wish
them

THE BEST OF PROSPERITY

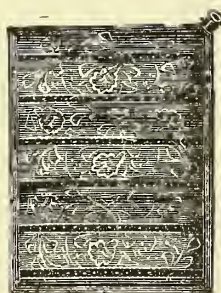
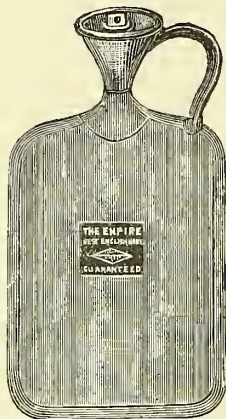
in the Coming Year.

*Pure Chemicals and Pharmaceutical Products.
Manufactured at their model laboratories at East Ham.*

COLEMAN STREET, LONDON, E.C.

Telegrams: "CYRIAX LONDON."
ABC Code Used.

Telephone: 3254 LONDON WALL
(4 lines).



**ILLUSTRATED
LIST
FREE ON
APPLICATION**

THE Season's Greeting

Heartiest Goodwill
to all in the
Drug Trade
at home and
abroad with
best wishes for
prosperity in
the New Year.

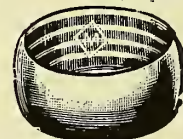
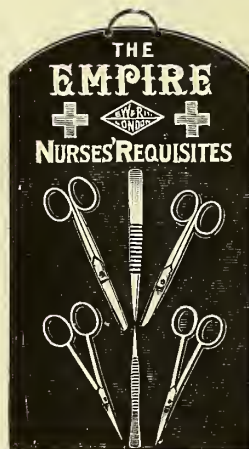
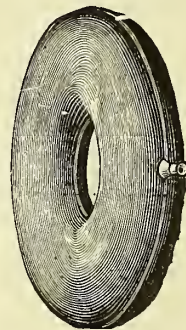
*Burge, Warren
& Ridgley, Ltd.
91-92 Gt. Saffron Hill,
London, E.C.*

Xmas 1911.

New Year 1912.

SEASONABLE SIDE LINES

HOT-WATER BOTTLES
AIR CUSHIONS
HAIR BRUSHES & COMBS
SAFETY RAZORS
CLINICAL THERMOMETERS
NURSES' REQUISITES
ANTI-RHEUMATIC RINGS
ANEROID BAROMETERS



TEL. NO.:
8572 P.O.
Central

TEL. ADD.:
"PESSARIES,
LONDON"

OWN NAME
AND
BRAND
DISINFECTANT
(STANDARDISED)
AND
LIQUID SHEEP DIP
(APPROVED BY BOARD OF AGRICULTURE).

That is how we help chemists
and those in the drug trade to
attain the

HAPPY PROSPERITY

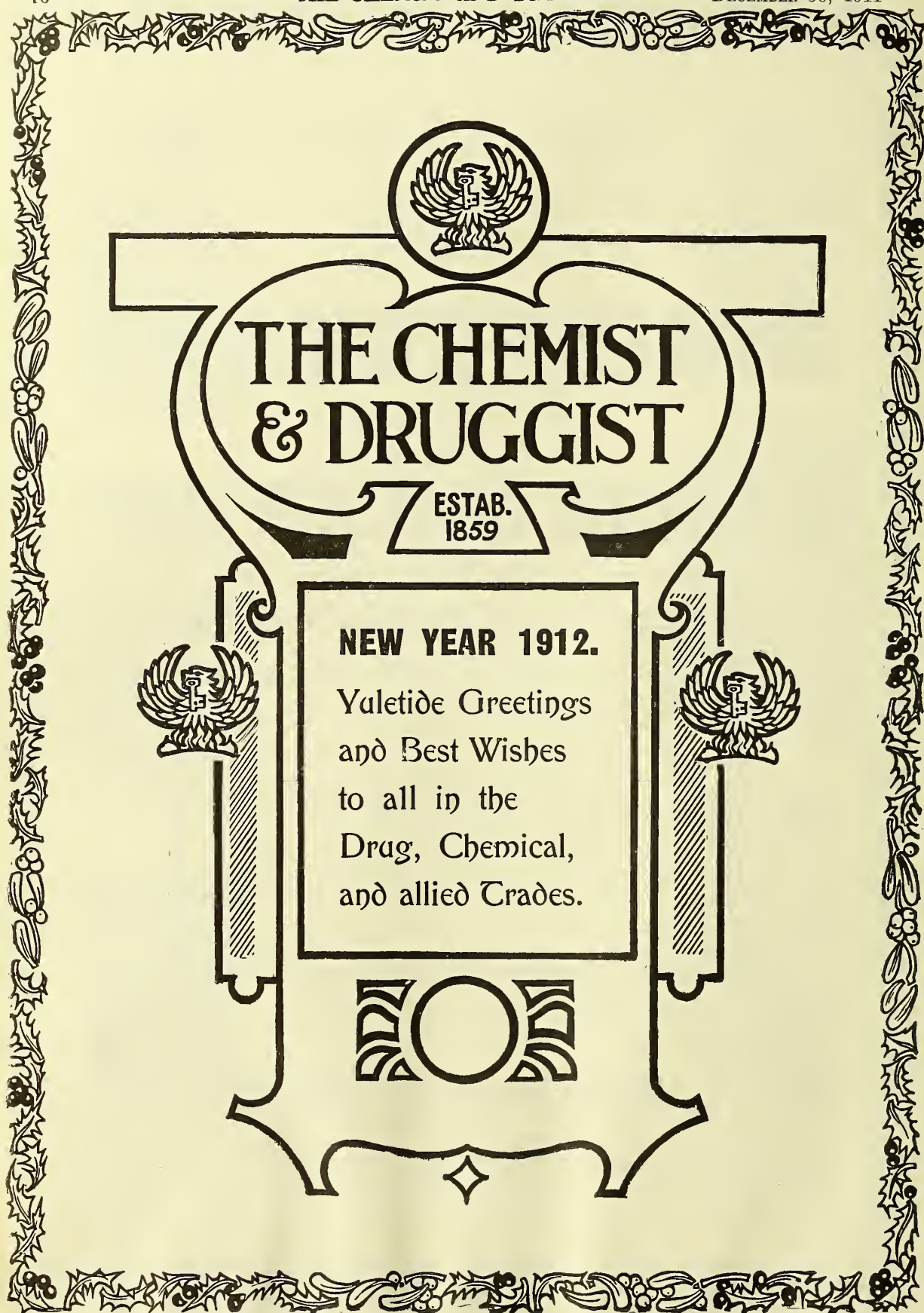
we wish them in the New
Year and other years
to come.

HEAD

Offices : 64 Cannon St., London, E.C.

Burt, Boulton & Haywood,
LIMITED,
CHEMICAL WORKS: PRINCE REGENT'S WORKS, SILVERTOWN,
LONDON, E.C.

Agent for Ireland: H. FitzGerald Campbell, 5 Greenmount Rd., Terenure, Dublin.



1912.



*The Very Best
for
The Coming year.*

TELEGRAMS :
"TABLETS
LEEDS."

TELEPHONE :
133
RAWDON.

W. B. Cartwright Ltd.
RAWDON
NR LEEDS

MANUFACTURERS
OF
COMPRESSED TABLETS.

A Prosperous Year to You.

YOU CAN MAKE THE NEW YEAR MORE
PROSPEROUS BY SELLING MORE "DAISIES."

"**Daisy**" yields over 100% profit on the bulk or the sales and is on the P.A.T.A. Protected List.

"**Daisy**" is the popular cure. It always satisfies the customer. It almost sells itself. No arguments required.

"**Daisy**" is the Standard remedy for Nervous Headaches and Neuralgic Pains. Medical Science knows no better cure.

"**Daisy**" will gladly help with Showcards for the window, Novelties for the kiddies, Wrappers for the counter, Mutual Handbills for distribution, or a Window Display that will cause a sensation.

PARTICULARS FREE. GIVE US A CHANCE.

DAISY, Ltd., Mammoth **LEEDS.**
Works,

ESTABLISHED 1893.

Telegrams: "DAISY LEEDS."



THIS MARK MEANS
THE ACME OF
PERFECTION IN
BRITISH PRODUCTS
FOR ANÆSTHESIA
& FOR PHARMACEU-
TICAL SPECIALITIES
OF GREAT EXACTNESS.

XMAS 1911

*The Compliments of the Season to
all in the drug and Chemical trade.
May the New Year be prosperous.*

CHLOROFORM ETHYL CHLORIDE ETHERS

DUNCAN FLOCKHART & CO.,

Edinburgh & London.



1911.

During the Coming Year we
will co-operate with Chemists
all over the world in cultivating
and increasing

1912.

The Eucryl Habit.

By this means we will secure
an increase of

Prosperity & Happiness
for each other.

SEASONABLE GREETINGS.

EUCRYL, LTD., Sculcoates, HULL.

CRUDE DRUGS
LACTIC FERMENTS
GENUINE GALENICALS
DRUGGISTS' SUNDRIES
OPTICAL GOODS

FINE CHEMICALS
ESSENTIAL OILS
COUNTER ADJUNCTS
SHOP FITTINGS
PHOTO REQUISITES

NEW YEAR 1912.

*To our friends in Pharmacy
and the Drug Trade the
world over we send Heartiest
Greetings and Best Wishes
for increased Prosperity
in the Coming Year.*

MOTTO FOR 1912:

“Evans for Everything.”

EVANS SONS LESCHER & WEBB, LD.

LIVERPOOL and LONDON.

NEW YORK, U.S.A.: 92 William Street.

Telegrams: “*Basilio Liverpool*”: “*Lescher London*.”

Telephone Numbers: *Liverpool—General, Royal 1447 (2 wires)*

“*Town—Royal 1920 (3 wires)*”

“*London—Holborn 6155 (3 wires)*”

BRITISH-MADE BOTTLES.

FLATS,
OVALS,
PANELS,
SQUARES,
CORBYNS,
EMULSIONS,
Etc. Etc.



In WHITE FLINT,
QUININE,
AMBER,
ACTINIC GREEN,
PALE GREEN,
DARK BLUE,
OR
LIGHT BLUE
GLASS.

POISON BOTTLES

TO MEET NEW REGULATIONS.



Xmas 1911.

*Many thanks for past kindnesses, and best
wishes for the New Year to all our friends
in the Drug Trade.*

T. FERRY & SON, PARK LANE GLASS WORKS,
— GATESHEAD-ON-TYNE. —

Telegrams: "Bottles Gateshead."

Telephone 70 Gateshead.

Telephone No 65 City
Telegrams, FORSHAPCO, London.

FORD, SHAPLAND & CO

**LABEL &
GENERAL
PRINTERS**

Offices

**Great Turnstile,
HIGH HOLBORN,
LONDON, W.C.**
Works - Whetstone Park.

**LETTERPRESS
LITHOGRAPHIC
TRI-COLOUR**

NEW YEAR 1912

OVER 70 YEARS

and still **PRINTING** for
Chemists, we have
experience behind us
and can assist in
securing **OUR WISH**
for our friends of

PROSPERITY & HAPPINESS

in the Coming Year.

Nothing brings business
better than tastefully
printed **labels, bills,
catalogues, &c.**

FOLDING CARDBOARD BOXES.
ILLUSTRATED COUNTER BILLS.

ART BILLS IN COLOURS.
ALMANACS :: CALENDARS.

PRESCRIPTION BOOKS.
ACCOUNT BOOKS.

Established over 70 Years

FORD, SHAPLAND AND CO

Engraving

Cartons

Show
Cards

Wrapping
Papers

Bookbinding

Posters

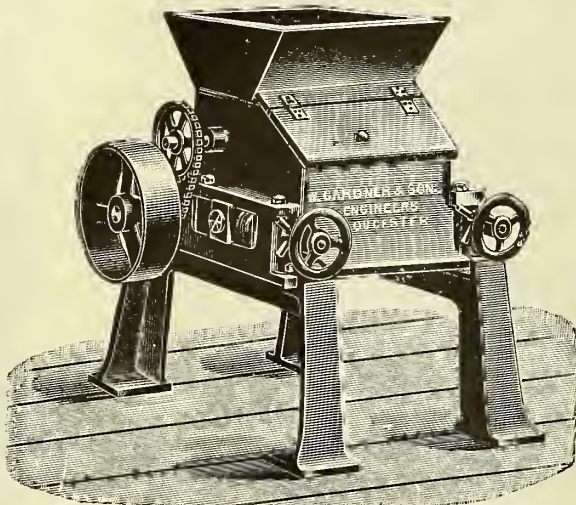
Price Lists

Sealing
Wax and Twine

1911—1912

The Season's Greetings.

*As for Fortune you're **Crushing** and **Straining**
To prevent **Mix-ed** worries and ills
Let "Gardner's" **Sift** all the misfortunes remaining,
And **Grind** them to dust in their **Mills**.*



Gardner's Crushing or Grinding Mill

GARDNER'S PATENT
"RAPID" SIFTERS & MIXERS,
POWDER-DRESSING MACHINES,
GRINDING MILLS,
LIQUID STRAINERS,
STAMPERS, &c.

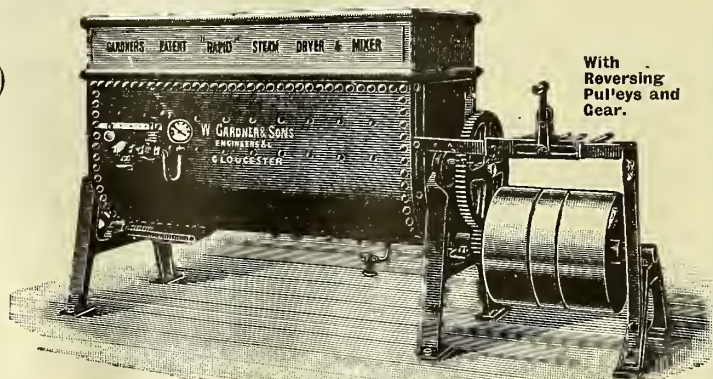
**Wm. Gardner,
& Sons (Gloucester)
Limited,**

**Powder-Sifting &
Mixing-Machine
Specialists,**

**Engineers,
Gloucester.**

Tel. No. 117.

Cables:
"Gardner, Gloucester."



With
Reversing
Pulleys and
Gear.

Evaporates Moisture from Powders, and occupies little space.
Made for Steam or Gas Heating.

HEARTY
GOOD WISHES FOR
A PROSPEROUS
AND
PROFITABLE
NEW YEAR
TO ALL IN THE
DRUG TRADE.

**MAKERS OF
DECORATED
TIN
CANISTERS.**

**IMPORTERS
& GRINDERS
OF DRUGS
& SPICES.**

**PACKERS OF
CULINARY
ESSENCES,
SALINES, &c.**

GOODALL, BACKHOUSE & Co.
*WHITEHORSE STREET,
LEEDS,*

& 54 SOUTHWARK STREET, LONDON, S.E.

*Wishing all our
friends a happy
& prosperous
New Year.*

HIGHLY APPROVED
By the
MEDICAL PROFESSION.



The only perfect
syphon which
fully ensures
avoidance of the
contents coming
into contact
with metal.



As Supplied
to
H.M. the King.



IDRIS & CO.
supply Circulars
and Showcards
and give their
agents every as-
sistance possible
to secure a good
trade in IDRIS
Royal Table
Waters.

IDRIS & CO., Ltd., Camden Town, London, N.W.

BRANCHES: Liverpool, Southampton, Canterbury, Teddington.

DEPOTS: Bournemouth, Portsmouth, Margate, Ramsgate, Folkestone,
Letchworth (Garden City), Southend, Watford, Enfield.

ESTAB.



1780.

THE DISTINGUISHING MARK FOR
ALKALOIDS OF OPIUM, FINE
CHEMICALS AND ANTISEPTIC
DRESSINGS.

New Year 1912

J. F. Macfarlan & Co. send
the season's greetings to
Pharmacists and all in the
Drug and Chemical Trades
throughout the world.

MORPHIA, CODEIA, APOMORPHIA,
MORPHIA ESTERS, CHLOROFORM, ETHER,
SALICIN, CHRYSAROBIN,
LISTER ANTISEPTIC SURGICAL DRESSINGS.

Edinburgh

London

1912.

1912.

VERB. SAP.!

20th December, 1911.

"In enclosing cheque for account due, I would like to express my pleasure at the way you have executed my orders during the year now fast drawing to a close, also at the exceedingly courteous and fair way you have always met any complaints.

"Wishing you the Compliments of the Season, and hoping that I may be able to do still more with you during the coming Year."

20th December, 1911.

"Allow me to express my pleasure at the prompt and careful way you serve me. Running over my books just now I find I have paid you rather more than £500 during the year; may it be much more next year.

"Wishing you the Compliments of the Season."

MAY, ROBERTS & CO., LTD.

can give YOU satisfaction,

as they have to the writers of these two recent unsolicited testimonials. : Write for Price List.

7, 9, & 11 Clerkenwell Rd., London, E.C.

16 Westmoreland St., Dublin.

MORPHINE

Morphine Esters

Alain

Capsicin

Gingerin

Podophyllin

Salicin

Ergotin



GRAND PRIX, PARIS, 1900

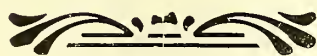
GRAND PRIX, FRANCO-BRITISH, 1908

GRAND PRIX, BRUSSELS, 1910

NEW YEAR 1912

T. & H. SMITH, Ltd.

greet all in the drug and chemical
trades the world over and wish them
every good thing in the New Year.



ADDRESSES:

EDINBURGH:

BLANDFIELD CHEMICAL WORKS.

LONDON:

22 CITY RD., E.C.

GLASGOW:

37 WASHINGTON ST.

CODEINE

Caffeine

and its salts

Chloroform

Scammony

Resin

Jalap

Resin, etc.

A NEW IDEA FOR THE NEW YEAR.

The attention of all retail chemists is directed to the fact that in every city and in many towns throughout Great Britain depôts exist for the supply of O. S. & Co.'s products. In the new year these depôts will supply

PALATINIDS, BI-PALATINIDS, COCOIDS, AND PULVERETTES IN SMALL QUANTITIES (BOTTLES OF 25) FOR DISPENSING PURPOSES.

In the absence of a near depôt, as in country districts, such small quantities will be supplied direct.

This arrangement has been made solely in the interest of the retail chemist. When a prescription is to be dispensed for any of the above products, not in frequent demand, the chemist will be at no loss if there is no "repeat." An unprofitable feature of modern pharmacy is thus obviated.

We hope this will be accepted by our friends as an expression of our

HEARTY GOOD WISHES FOR 1912.

Oppenheimer, Son & Co., Ltd., 179 Queen Victoria St., London.



BEST WISHES FOR A HAPPY AND SUCCESSFUL NEW YEAR . .

FROM

J. H. HAYWOOD, Ltd.,
Surgical Appliance Manufacturers,
NOTTINGHAM.

Wishing all my friends
in the Trade the Com-
pliments of the Season
& increasing Prosperity
in 1912.

THOMAS SWALES, Druggists'
Sundryman,
24 BUTT'S COURT,
And 89 ALBION STREET, LEEDS

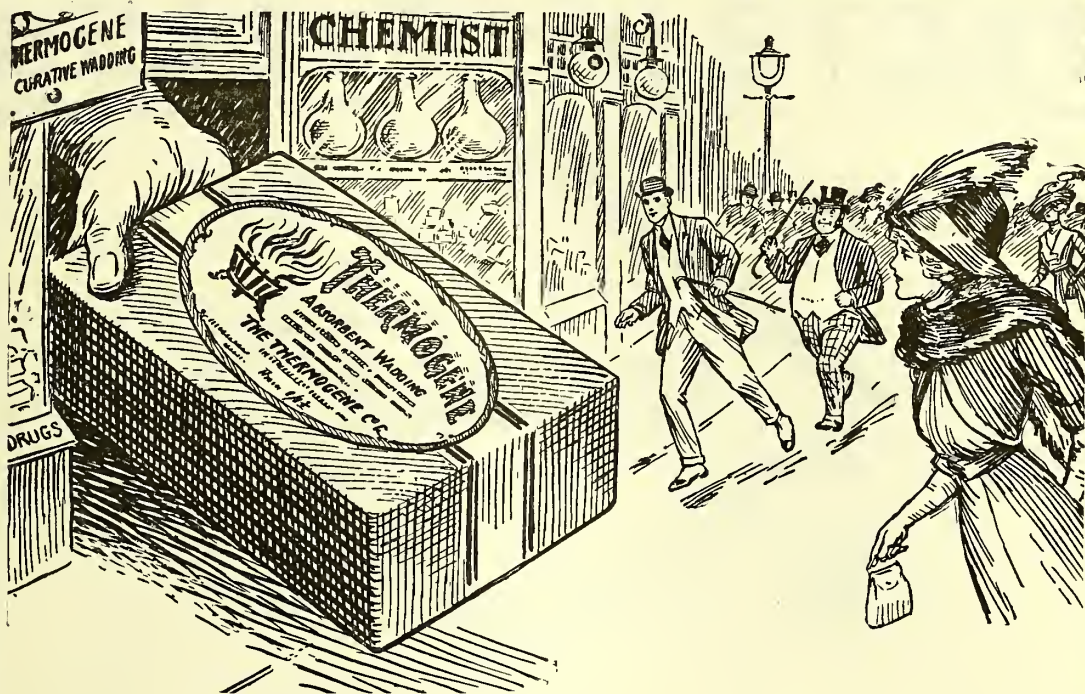
Tel. Nos. : Central 3702 ; Headingley 406.

GEE! How quick! —Capping with SELF-FIXING BOTTLE CAPS

—so quick, so simple, so perfect, so effective, so efficient, that all other methods of Bottle Capping are entirely superseded. Just slip the loose wet cap on and leave, and the cap does the rest. Brilliant, elegant, strong, air-tight, and spirit proof. But send for the Booklet to

THE VISCOSE DEVELOPMENT CO., LTD.,
11 Queen Victoria Street, London, E.C.





*When a proprietary
is run after by old and
young alike it is the best*

CURATIVE FOR BAD TRADE

*the Chemist can sell.
That is why the sale of*

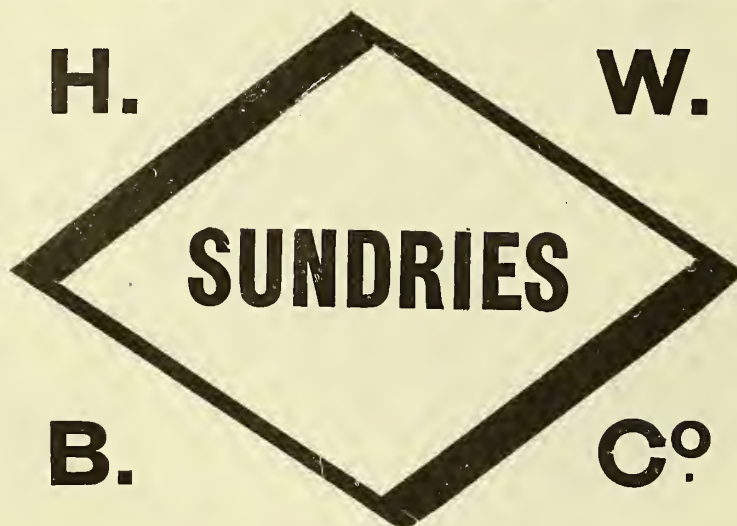
THERMOGENE

*means prosperity and
happiness to the trade
during the New Year.*

THE THERMOGENE CO., LTD., 100 Hayward's Heath, SUSSEX.

FASSETT & JOHNSON, 86 Clerkenwell Road, LONDON, E.C.

FACTS NOT FABLES.



L O N D O N .



THIS POPULAR MARK REPRESENTS
A GOOD QUALITY ARTICLE AT A
REASONABLE PRICE.

WE DO NOT TRADE ON OUR GOOD
NAME ALONE, BUT ON THE TRUE
VALUE OF OUR SUPPLIES.

SPECIAL EXPORT PATTERNS.

ALL BLOWN GLASSWARE
GRADUATED MEASURES
CLINICAL THERMOMETERS
BOTTLES—EVERY BOTTLE MADE
SUSPENSORY BANDAGES
TRUSSES
SANITARY TOWELS
HORN COMBS

FEEDING BOTTLES
COMFORTERS, TEATS, &c.
CORKS (SPECIALITY)
BED PANS
TOOTH BRUSHES
EARTHENWARE FILTERS
MEDICINE CHESTS
SHOW CASES

AND ALL SUNDRIES FOR WHOLESALE AND EXPORT ONLY.

HENRY W. BUSH AND COMPANY, LTD.

REMBRANDT WORKS,

32 to 34a COMMERCIAL STREET, LONDON.

(ESTABLISHED 1887.)

Turn Over a New Leaf

Mr. Chemist



Because of:—

Mistakes
Arguments
Dissatisfied Customers
No Check on Assistants
No Credit for Good Work
Temptation of Employees
Forgetting to Charge Goods sold
on Credit

Resulting from:—

Accuracy
Harmony
Pleased Customers
Enforced Records
Showing Value of Assistants
Removing Temptation
Preventing Failure to Charge Goods
sold on Credit

A Modern National Cash Register turns Losses into Profits.

Investigate Now—Easy Terms of Payment if Desired.

Cut out or copy

To the National Cash Register Co., Ltd.,
225 Tottenham Court Road, London, W.

COUPON.

Dec. 30.

Without committing me to any charge or obligation, please send me particulars showing how a National Cash Register will make more money by increasing my trade and profits in 1912, as advertised in CHEMIST AND DRUGGIST.

Name.....

Date.....

Address.....

Telephone: { 14550 & 14551 Central
9670 & 9671 City

Branch Offices in all large Cities.

Telegrams: "Nacarcce, London."

B

F. VARALDI.

Quality and Price beat all Competitors.

ESSENTIAL OILS.

Almonds	Orris root
Bay	Peppermint
Bergamot	Petit-grain
Cypress	Rose de Cannes
Eucalyptus Globulus	Rose Turkish
Geranium	Rose The
Lavender	Rosemary
Lemon	Spike Lavender
Lemongrass	Thyme
Neroli	Verbena french

PERFUMERY EXTRACTS,

Nos. 24, 36, 72 & 240.

CASTOR OIL, OLIVE OIL, FLORAL WATERS, PERFUMED OILS. NATURAL FLOWER PRODUCTIONS.

Sole Agent:
W. BONSER HAYWARD, 17 Lawrence Lane, London, E.C.
'Phone 8507 Bank.

In Charming Cut Crystal Bottles, 5 sizes, from 2/6



A Perfume
of Refined and
Subtle Fragrance, of
Distinctive Character, remarkable
for its Novelty and Delicacy.

DIVINIA

*The Favourite Perfume
of the Fashionable World.*

Gold Medal,
Paris, 1900.

Grand Prix,
St. Louis, 1904.

Sole Makers—

F. WOLFF & SOHN,

LONDON, PARIS, KARLSRUHE

Wholesale—82 Hatton Garden, E.C.

Sold by Chemists.

THE "HALIFLOR" Co.

PARIS & DOBERAN.

"CROWN PRINCESS" VIOLET.

The really true natural Perfume of the Violet, as advertised in all the Ladies' and Society Journals.

Retail Price - - - 5/- & 10/6

Wholesale - 45/- & 90/- per dozen.

Beautiful Showcards and small Counter Sample free. The 10/6 bottle in a beautiful silk-lined leather case, most suitable as a Christmas Present.

LONDON HOUSE—HERTZ & CO., 9 MINCING LANE, E.C.

TO USERS and DEALERS in METH. SPIRIT and SPIRIT OF WINE.
FOR QUOTATIONS apply to—

PRESTON'S LIVERPOOL DISTILLERY CO., LD.

The Largest Makers in the Kingdom.

BANKHALL DISTILLERY, SANDHILLS, LIVERPOOL. Office: 4 India B'ngs, Water St., Liverpool.

ROBARE'S AUREOLINE Or GOLDEN HAIR WASH.

4-oz. Bottles, 33/- 10-oz. Bottles, 66/- per doz.

Wholesale from R. HOVENDEN & SONS, LTD., and from all the principal Patent Medicine Warehouses in London.

Erasmic Soaps & Perfumery.

*THE ERASMIC CO. LTD.
wish you a very Happy
and Prosperous New Year.*

Works :
Warrington.

Showrooms :
117 Oxford St.,
London.

Just a line to wish all our friends the good
old wish a Happy and Prosperous New Year.

F. SCHUTZE & Co., Ltd., *Black Bull Works,*
Caledonian Market, LONDON, N.

ESSENTIAL OILS. SOUTH AMERICAN BALSAMS.

THE **D & O** BRAND
STANDARD OF QUALITY.

Samples and quotations will be promptly furnished on application.

DODGE & OLCOTT CO., 20 MARK LANE, E.C.

Telephone—
2468 City.

Quality & Price in Tubes

Quality is of primary importance in Collapsible Tubes, Sprinkler Corks, Shaving Stick Tubes, and all Druggists' Metal Goods; and given quality, the next consideration is a reasonable price.



Our experience of more than 100 years and our reputation are sufficient to assure you of obtaining goods upon the quality of which you may rely absolutely: the largest factory in the world, a staff of 800 hands and the scale on which we buy our raw material enable us to give you an advantage in price as well.

Have you seen our Patent Adhesive Capsule, which cannot be removed without destroying it?

Absolute guarantee of purity of the contents.

BETTS & CO., Ltd., 1 Wharf Rd., City Rd., LONDON, E.C.

TIDMAN'S SEA SALT.

ON P.A.T.A. LIST. GOOD PROFITS. SMALL STOCK. QUICK SALES.

Orders of Twenty Shillings value and upwards Carriage paid—Cases Free
Advertised Price. Minimum Retail Price. Minimum Wholesale Price

1d. Packets.	12 in box	9½d. per box.	7/7 per grs.
2d. "	" "	1/6	14/9 "
1d. linen Bags.	" "	9½d. "	7/7 "
2d. "	6 in box	9½d. "	14/9 "
4d. Boxes, about 1½ lbs.	3d. "	"	2/6 per doz.
8d. "	" 3 "	6d. "	5/- "
1/2 "	" 7 "	11½d. "	9/8 "
2- "	" 14 "	1/9 "	17/6 "

SINGLE BAGS of following 3 sizes sent CARRIAGE PAID to any place in the United Kingdom, so that there is no Stock to hold.
3/- Bags (or boxes) 28 lb. 3/- each 2/6 each.
5/6 Bags ½ cwt. 5/6 " 4/6 "
10/- Bags 1 cwt. 10/- " 8/- "

Accounts Monthly net due 10th of following month. Terms for Seidlitz Powders, Pinnacle Soap Stands, Toilet Soaps, &c., sent on application.
TIDMAN & SON, LTD., WAPPING, LONDON, E.

O'KELL'S ORIGINAL MONA BOUQUET

(First introduced by the late JOSEPH O'KELL.)

Registered Trade Mark, "DOUGLAS PIER."

The most popular and best-selling perfume in the market.
Retail Prices ... 1/-, 1/9, 3/6, 6/-, 7/6, 10/6 per Bottle.
ALSO 3d. SAMPLE BOTTLES.

Shippers and Wholesale Buyers supplied on the best terms by
THOMAS WEST & SON, 117 Chester Road, Salford, MANCHESTER.

THE "C. & D." NEW SERIES OF BOOKS.

PHARMACEUTICAL FORMULAS.

Being THE CHEMIST AND DRUGGIST'S book of useful recipes for the drug trade. By PETER MACEWAN, Pharm. Chem., F.C.S. The first edition of this popular book was published early in 1898 and extended to 662 pages. The new (eighth edition) contains over 1,000 pages. Besides being a formulary the book is a treatise on many of the formulæ subjects, and is regarded by chemists and manufacturers as most valuable.
Price 10s. net, by post 10s. 6d.

VETERINARY COUNTER PRACTICE.

An indispensable book for chemists, whether urban or rural. It deals with ailments of horses, cattle, sheep, pigs, dogs, and poultry. The new edition (sixth), like its predecessors, is by an experienced M.R.C.V.S., and includes much new matter. Contains over 430 pages.
Price 4s. net, by post 4s. 4d.

DISEASES AND REMEDIES.

Chemists and Druggists need to know something about diseases and their treatment, and this book fills the gap between books of domestic medicine and standard works for medical practitioners. The new edition (fourth) has been brought up to date and enlarged to 262 pages.
Price 3s. net, by post 3s. 3d.

OPENING A PHARMACY.

The third edition (1911) deals with capital required, shop-fitting, order for drugs, the dispensing department, business policy and prices, chemists' books and how to keep them, stock-keeping and stocktaking, how to take a lease, trade marks and copyright, the sale of poisons, stamped and dutiable medicines, local advertising, weights and measures, and income tax. As a manual of business knowledge it is indispensable. Contains over 100 pages with illustrations.
Price 2s. 6d. net, by post 2s. 9d.

Published by THE CHEMIST AND DRUGGIST and supplied through the Wholesale Houses at the published price.

The number of dentifrices is myriad, their names are legion,

But—

in principle and in efficiency there is but one,

CALOX

THE OXYGEN TOOTH POWDER.

Its principle is the evolution of oxygen.

Its efficiency as a cleanser of the teeth is due to the oxygen which it generates when used.

Not only antiseptic, but deodorant, two desirable properties of a tooth powder. Its oxidizing and deodorizing power was obvious in our experiments.—THE LANCET, Lond.n, Eng.

Possesses not only strong antiseptic, but deodorizing and oxidizing properties, as the result of which the teeth, after a few days' use of CALOX, acquire a pearly whiteness.—THE CHEMIST AND DRUGGIST, London.

CALOX is entirely different from other dentifrices. Its introduction marks a decided advance in the scientific development of a dentifrice, a fact which the dental profession the world over has been quick to recognise. Chemists should interest themselves in Calox because only a chemist can explain the peculiar virtues and value of an oxygen-producing dentifrice.

Price to the trade, 9/6 per dozen on the P.A.T.A. plan.

McKESSON & ROBBINS, New York, U.S.A., Manufacturers.

BRITISH DEPOT—G. B. KENT & SONS, Ltd., 75 Farringdon Road, London, E.C.

Stock the articles which your customers require—and will ask for again. Among these

CALVERT'S

Carbolic Tooth Powder

occupies, of course, a prominent position all over the world. And there is a good demand too for the other specialities, Carbolic Soaps, Ointment, Disinfectants, &c., made by F. C. Calvert & Co., Manchester, England. Illustrated Price List post free on request.

TEFRAS PREPARATIONS

Retail net price
 "TEFRAS" DENTAL CREAM 1/- per Tube
 "TEFRAS" LIVER CACHETS 2/6 " "
 "TEFRAS" TOILET SOAP 4½d " Tablet

are all of Special merit and worth attention.

For Full Particulars, Special Terms Samples, etc.; inquiries are requested by

THE TEFRAS SPECIALITY CO., LTD.,
 27 Edgware Rd., London, W.

SUPPORT HOME INDUSTRIES.

Estd. 1777.



Incd. 1900.

BUY
KENT'S
BRUSHES.

Summer Issue, 1911, pp. 42, 43.
 Diary, 1912, pp. 74, 75.

IMPORTANT NOTICE.



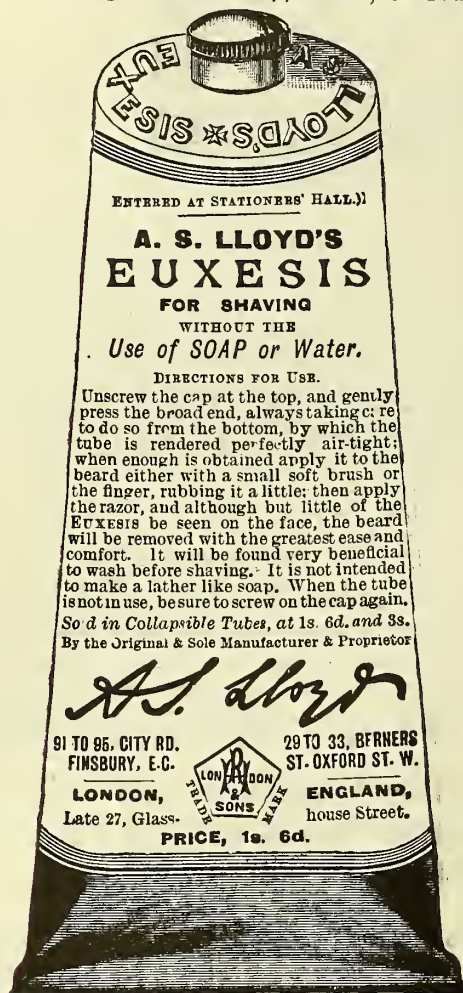
Spurious "SILVERDRAWN" Tooth Brushes are being stamped "SILVERDRAWN" and offered to the Trade, which are NOT made by us, and to prevent loss and disappointment Chemists desiring our make of Brushes will please in future order through our recognised agents, our travellers, or direct from the works, Axminster, Devon.

BIDWELL, BIDWELL & CO.

A. S. LLOYD'S EUXESIS

(THE GENUINE.)

For Shaving Without Soap, Water, or Brush.



Sold by all Perfumers and Chemists throughout the World.

R. HOVENDEN & SONS having purchased, under an administration suit, the Business of the late A. S. LLOYD, with the Receipt, Trade-mark, and Goodwill of the celebrated Euxesis, the Trade are cautioned that the original and genuine Euxesis is now manufactured at our Factory ONLY, and may be obtained at either of our Warehouses at the following prices:

10/- per dozen, 9/6 by the 3 dozen, 9/- by the 6 dozen.
 Retail at 1/6 the Tube; 3/- size to order.

NOTICE.—THE GENUINE A. S. LLOYD'S EUXESIS bears a label printed in BLACK only on a Yellow ground, with our Trade Mark at the bottom, as Illustration.

Proprietors: R. HOVENDEN & SONS,
 LIMITED,
 29-33 Berners Street, W.
 and 89-95 City Road, E.C., LONDON.



NO
G
L
O
S
S

NO
P
O
L
I
S
H

In bottles, 6d. each, in separate neat cartons, with suitable brush. These Dyes are a distinct invention, dying the straw without an objectionable varnished appearance, and producing the effect of new goods. On the P.A.T.A.

Write for terms, patterns, also leaflet of testimonials:

WHITAKER & CO. COLOUR WORKS,
 KENDAL, ENG.

London Depot: 8 MILK STREET, CHEAPSIDE, E.C.

SPECIALISTS IN VARNISHES, STAINS, DYES, &c. EST. 1878.
 Telegraphic Address "Dullette" Kendal.



"EGGLOSSA" MFG. CO.,
 129 Gloucester Rd., BRISTOL.



A. S. LLOYD'S EUXESIS.

For Shaving without Soap, Water, or Brush.

CAUTION.

The Labels on genuine EUXESIS bear signature of A. S. LLOYD in BLACK INK, and that of his Widow, AIMÉE LLOYD, in RED INK. Refuse any other.

Sole Manufacturers and } **AIMÉE LLOYD & CO.**
Proprietors:
23 PANTON STREET (formerly named Spur St.), LEICESTER SQUARE,
LONDON, S.W.

N.B.—When ordering from Wholesale Houses write LLOYD'S EUXESIS (WIDOW'S).

PETROLEUM JELLIES

Paraffinum Molle, White & Yellow.

Unguentum Paraffin „ „

Petrolatums „ „

Commercial Petro. Jellies

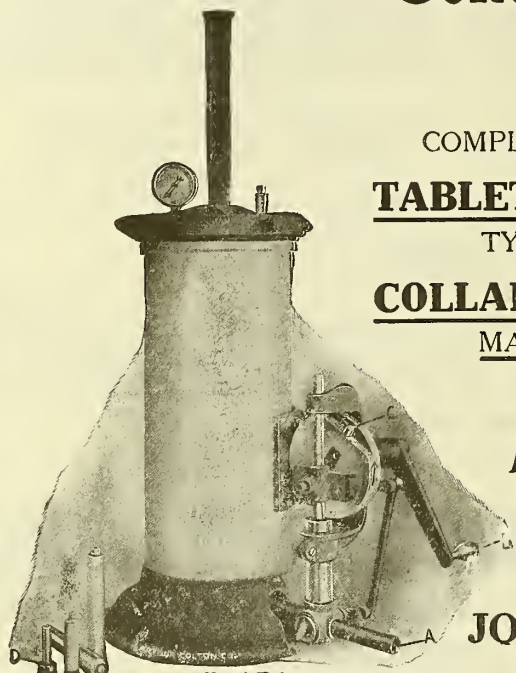
We pack according to Buyers' requirements.

ONLY WHOLESALE HOUSES SUPPLIED.

Send for Samples and Prices to the actual Manufacturers—

SCHLIEMANN'S OIL & CERESINE Co., Ltd. 23 Leadenhall St.,
LONDON, E.C.

Colton's Pharmaceutical Machinery.



Hand Tube
Filling Machine.

COMPLETE PLANTS FOR **PILL** MAKING.

TABLET MACHINES—SINGLE PUNCH & ROTARY
TYPE. **GRANULATORS.**

COLLAPSIBLE TUBE FILLING AND CLOSING
MACHINES, FOR HAND OR POWER.

Laboratory Equipment.

KAHLBAUM'S PURE CHEMICALS.
STUDENTS' SETS FOR "MINOR" AND "MAJOR."
DISSECTING INSTRUMENTS.

JOHN J. GRIFFIN & SONS, Ltd.,
KINGSWAY, LONDON, W.C.

Telegrams: "CUPRITE LONDON."
Telephones: 790, 794 HOLBORN.

Bennett, Sons & Shears

LIMITED.

Engineers and Coppersmiths,
FARRINGDON WORKS, SHOE LANE, LONDON, E.C.

Manufacturers of all kinds of

PLANT

FOR

Chemical Works & Laboratories,
Essential Oil Distillers,
Patent Food Factories,
Malt Extract Factories,
Condensed Milk Factories, &c.

COMPLETE PLANS SUPPLIED. INQUIRIES INVITED.

Illustrated Catalogues sent on application.

Valuations Prepared for Partnership
and Insurance Purposes.

Sole Proprietors and Manufacturers of

Bennett's Patent "Ideal" Condenser

Of which over 200 are in use. **BEWARE OF IMITATIONS.**

STOKES Automatic Water Still.

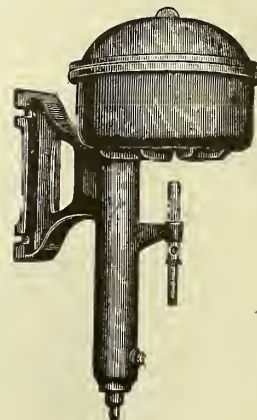
THE IDEAL STILL FOR
EVERY DISPENSARY.

NO STEAM
REQUIRED,
ONLY GAS
& WATER.

Price **£4 4s.** net.
CARRIAGE PAID in
the British Isles.

Best and most efficient
Still ever invented.
No Licence necessary.

*Send P.C. for full
particulars.*



Sole Agents—

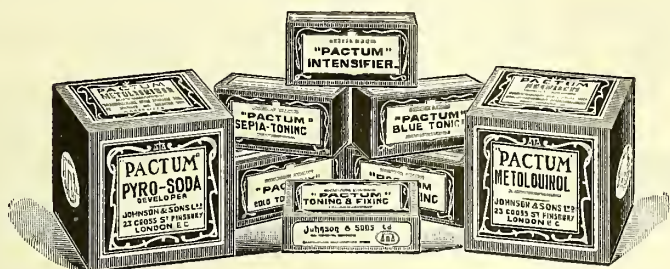
THOMPSON & CAPPER,
Manesty Buildings, College Lane, Liverpool.

Established 1843.

Telegrams: "Sanitas," Liverpool.
Telephone: Royal 2093. Code: 5th Edition A.B.C.

PACTUMS

Scales  Brand.



"Pactums" make an effective display, in a very little space, of every photographic reagent.

"Pactums" are a unique series of 2d. Developers, 3d. Tonings, Intensifiers, &c.

DEVELOPERS : Eikonogen, Hydrokinone, Metol, Metol-Quinol, Pyro-Metol and Pyro-Soda.

TONERS : Gold Toning and Fixing, Platinum, Sepia, Blue, Brown, Green, and Red.

SUNDRIES : Hypo-Eliminator, Intensifier, Reducer.

Our List sent regularly on application.

Manufactured by

Johnson & Sons,

Manufacturing Chemists, Ltd.,

**CROSS STREET
FINSBURY, LONDON.**

E. BENNETT & SON, LTD.

THE ALDGEATE EAST COPPER.
AND ENGINEERING WORKS.
7 ALDGEATE EAST CHAMBERS, LONDON, E.

Manufacturers of Laboratory Plant,

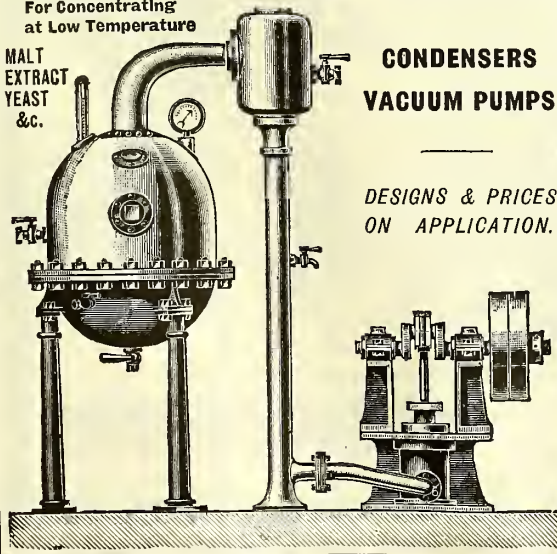
VACUUM PANS

For Concentrating
at Low Temperature

MALT
EXTRACT
YEAST
&c.

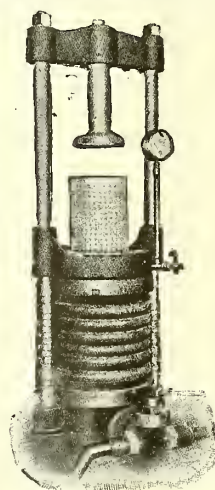
**CONDENSERS
VACUUM PUMPS**

DESIGNS & PRICES
ON APPLICATION.



AN INEXPENSIVE Hydraulic Tincture Press

(PISTONLESS PATENT)



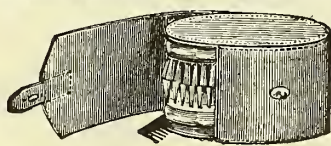
NO POWER REQUIRED

other than that
derived from the
ordinary Water
Main.

**Light Portable
Efficient
Powerful No Screw
No Lubrication**

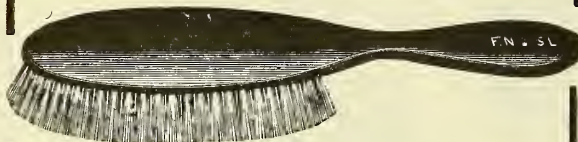
Write for full particulars of "Tincture," "Oil," or "Essence" Presses to— (3)

R. A. LISTER & CO., LTD. (Press Dept.)
ENGINEERS, DURSLEY.



MILITARY BRUSHES, Ebony

No. 7075E STIFF BRISTLES, per dozen 16/6
 * or PAIR IN LEATHER CASE " 45/-
 BLACK EBONISED MILITARY " 11/6
 * or PAIR IN LEATHER CASE " 35/-
 * (With comb 5d. each extra.)



BLACK OR WHITE HANDLED HAIR BRUSHES

from per doz. 9/-

We stock Ebony and Xylonite Hair Brushes
for Xmas Presents.

WINTER BELTS

FELT, cheap 2/- retail, per doz. 14/-
 SCARLET FLANNEL 2/6 " " 17/-

FRANCIS NEWBERRY & SONS, Ltd.,
27 & 28 Charterhouse Square, LONDON, E.C.

LISTERINE

The Popular American Antiseptic.

A non-toxic antiseptic of known and definite power prepared in a form convenient for immediate use; of ready dilution, slightly, pleasant, and sufficiently powerful for all purposes of asepsis—these are advantages which Listerine embodies.

The success of Listerine is based upon merit, and the best advertisement of Listerine is—Listerine.

LISTERINE DERMATIC SOAP

Designed to meet the most exacting requirements of a saponaceous detergent for use in the antiseptic treatment of diseases of the skin. No animal fats, and only the best vegetable oils enter into its composition, and of these it contains a surplus, "superfatted." It is a bland, unirritating and remarkably efficient soap.

LISTERINE TOOTH POWDER

This powder is not intended to supplant Listerine in the daily toilet of the teeth, but is offered in response to the demand for a frictionary dentifrice to be used in conjunction with this well-known and time-tried antiseptic.

Listerine Tooth Powder, like Listerine, will advertise itself by its intrinsic merit.

BRITISH TRADE SUPPLIED BY

MAW, SON & SONS, 7 to 12 Aldersgate St., London, E.C.

General Agents for Great Britain.

FOR DESCRIPTIVE LITERATURE, ADDRESS—

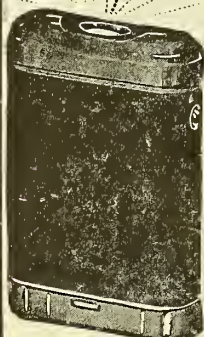
LAMBERT PHARMACAL CO., St. Louis, U.S.A.



MEET THE DEMAND

STOCK & SELL OUR
ELECTRICAL NOVELTIES & SUPPLIES

Send now for our large illustrated catalogue and nett trade price list—large profits and splendid demands.



WONDERFUL LINES.

Superior Pattern **ELECTRIC POCKET LAMP** with Bulb and Battery. Price 6/3 doz. With bull's-eye lense, 7/6 per doz.



The 'DAINTY' Pocket Lamp. Consists of exquisitely finished real leather covered waistcoat pocket lamp complete with best English refill and oval backed metal filament bulb and jewelled press. Gives a brilliant light and is equal in appearance to those retailed at 4/6. Price 1/8 each net. Lasts for many months without renewing.

A Supply of Illustrated Retail Lists with space for Name and Address given with each order.

The 'Dandy' Electric Walking Stick

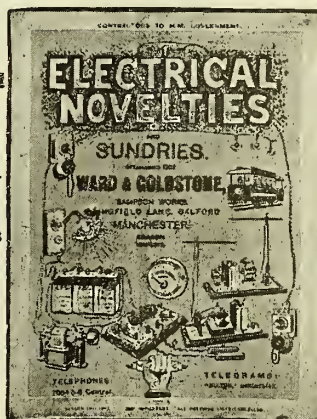
with hand-some plated knob, Malacca wood finish. Gives a brilliant light at will.

Price 5/4 net.

Medical Coils 12/- per doz.

Pocket Lamps 6/3 doz.

Electric Scarf Pins, with attachment, 5/6 doz.



WARD & GOLDSTONE,
Contractors to H.M. Government,
Salford, Manchester

Telegrams: "Multum, Manchester."
Telephone: 7084-5-6 Central.

THE 'DELIA' MEDICAL COIL

with automatic switch which breaks battery circuit when box is closed. In walnut case, with leather supporting handle, as illustrated. 17/4 net.

Medical Coils from 12/- doz.

Best quality Refills for Pocket Lamps, guaranteed, 2/10 doz.



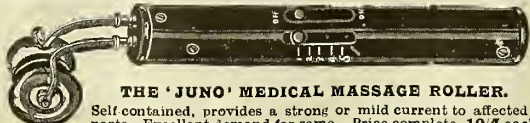
Metal Filament Bulbs from 3/6 doz.

DRY BATTERIES

The 'Award' Telephone Set Very reliable. Not a toy. Complete with 75 feet wire and batteries. 11/4 the pair.



A large selection of Bells and Telephones.



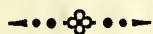
THE 'JUNO' MEDICAL MASSAGE ROLLER.

Self contained, provides a strong or mild current to affected parts. Excellent demand for same. Price complete, 10/4 each

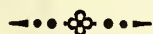
OUR SPECIALITIES

ARE

**GOLD SPECTACLES
and EYEGLASSES.**



**ROLLED GOLD and
RATENOID
SPECTACLES and
EYEGLASSES**
for Home & Export Markets.



**‘En-Gee’
Finger-Piece Clips.**

**‘MENISKEN’
LENSES.**

**‘HALLAUER’
LENSES.**

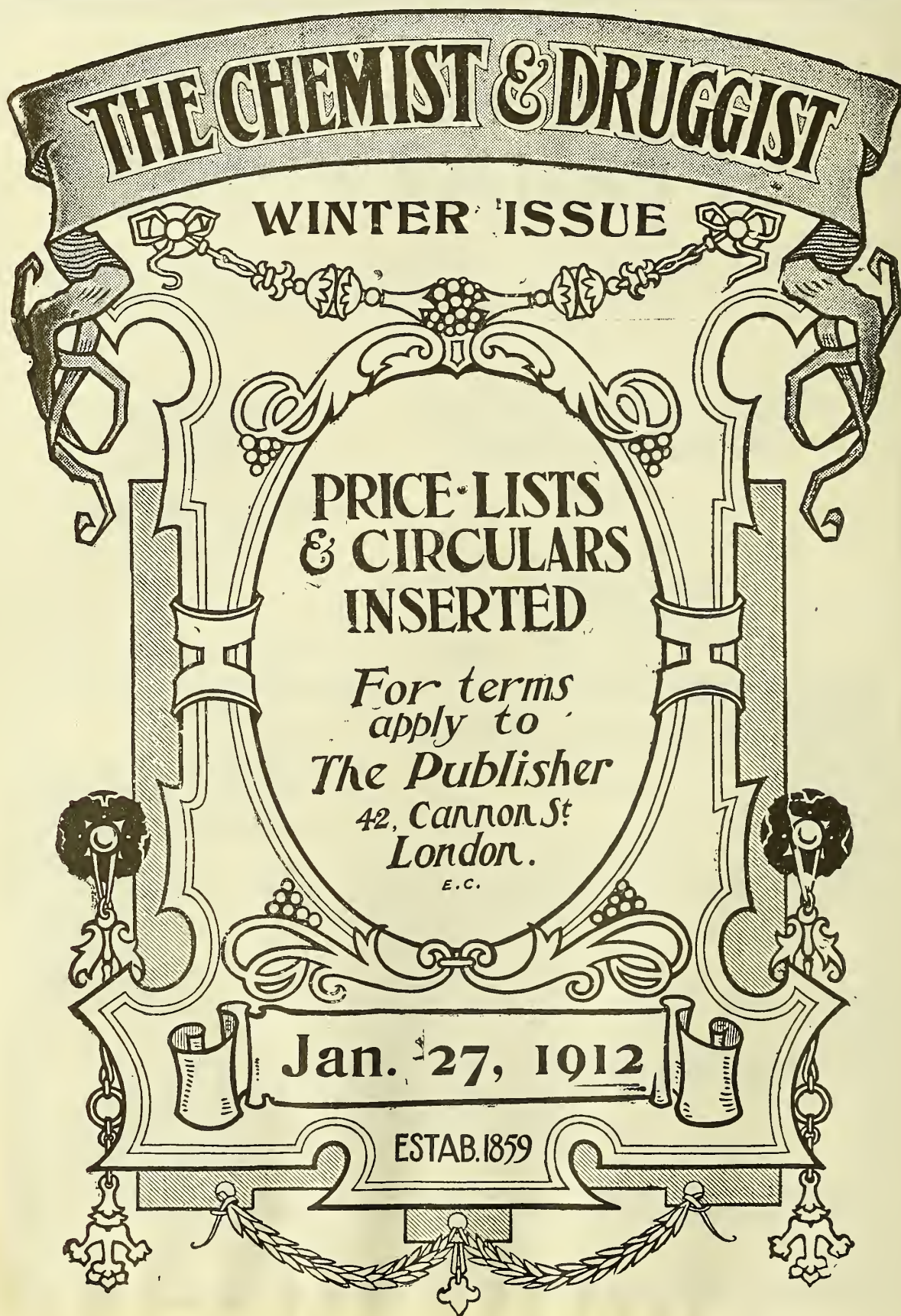


**Trial Cases and
Sight-Testing
Appliances.**

**Spectacle and
Eyeglass Cases.**

*Our Catalogue sent on
receipt of Trade Card.*

NITSCHÉ & GUNTHER
OPTICAL CO., LTD.,
66 HATTON GARDEN, LONDON, E.C.



TRADE
MARK

'DARTRING'

BRAND

Lanoline Products

Prepared with the original 'DARTRING' Brand Lanoline.

As to quality, method of preparation and style of packing, they are ideal. It pays to sell them; it pays to dispense them; they give perfect satisfaction to all concerned.

NOTE
THE
TRADE MARK



TRADE MARK

SPECIFY
WHEN
ORDERING

Supplied to the 'DARTRING' Brand
Trade as follows:

" Lanoline (Adeps Lanæ Hydros.)	in 1 lb. and 7 lb. tins,	2/11 per lb.
" Lanoline Anhydros. (Adeps Lanæ)	1 lb. tins,	3/7 "
Adeps Lanæ Hydros. B.J.D. ...	10d.	"
Adeps Lanæ Anhydros., B.J.D. ...	1/1	"
NOTE.—The letters B.J.D. should be specified if these qualities are required		
" Lanoline, Veterinary,	1 lb. tins,	1/1 "
" " Ointment Base,	"	2/4 "
" " " Anhydrous,	1 lb. tins,	3/0 "
" " Toilet, in collapsible tubes,	at 5/0 and	10/0 per doz.
" " " Specimen Boxes	...	28/0 per gross
" " Cold Cream, in 2 oz. pots,	at	15/0 per doz.
" " Pomade	" 2 oz. "	15/0 "
" " Toilet Powder,	in metal dredgers	5/0 "
" " Toilet Soap,	in boxes of 3 tablets	5/0 per doz.
" " Ichthyol Soap	" " "	6/6 tabs.
" " Pine Tar Soap	" " "	6/6 tabs.
" " Shaving Soap	in sticks	8/6 per doz.



Greatly reduced



Greatly reduced



Greatly reduced

Sole Licensees:

BURROUGHS WELLCOME & CO., LONDON (ENG.)

START THE NEW YEAR WITH SOME GOOD NEW LINES!

The undermentioned are a few of our best and we are confident you will profit greatly by giving prominence to any or all.

A Superb Line of FRENCH SOAPS

Manufactured by C. P. BEAIZE, Paris, one of the largest and most reputable of French Houses.

In quality, perfume, and daintiness of packing it compares favourably with many French lines offered at very higher prices.

LILAC, MUGUET, ROSE, VIOLETTE, GILLET DE FRANCE, &c.



SAMPLES.

For counter purposes to attract business.

In large size.

50 in box, 8/6 gross.

FULL SIZE.

Three Tablets, in dainty box.

8/- dozen boxes.

Unique in its Purpose, Attractive, Saleable and Profitable.

"ZEPTO"

In one dozen display Outers, P.A.T.A., 7½d.

4/6 dozen.

Small Panel Showcard, as illustrated, with all orders. Large Framed Panel with 6 dozen or by special arrangement.

A Large and Striking Range of Advertising Matter always obtainable on request.

If you Stock it

Give it a little more prominence. It will pay you.

If you don't,

Let us try to convince you of the opportunities you are missing.



LANOLINE

of finest quality. Made from a base far above B.P. standard. Let us send you sample and specimen labels.

BEEF EXTRACT

of exceptional merit, and an important side line for winter trade. Samples and Prices on request.

3d. INHALERS

The standard line that always sells for the showing. In display satchets - - - 1/9 a dozen.

PY-SHAN POINTS TEA

The original and most dependable small tea, and the one the doctors recommend. Write for details of specially favourable agency offer.

A PROPRIETARY TOOTH PASTE

or powder of your own, is a matter needing consideration and we can furnish interesting information on this subject if desired.

On receipt of a card we will send Particulars of Interesting Offers we will make in respect of all these lines.

THOS. CHRISTY & CO. OLD SWAN LANE, LONDON, E.C.



A Weekly Journal of the Chemical and Drug Trades
and of
British Pharmacists throughout the Empire,
ESTABLISHED 1869.

The CHEMIST AND DRUGGIST is the leading journal addressing the chemical and drug trades of the British Empire. It is adopted as an official journal by nineteen Chemists' Societies in Australia, Ireland, New Zealand, South Africa and the West Indies, and its paid-in-advance circulation in Great Britain and all Countries having business relations with the British Empire is intrinsically and numerically unique.

Subscription Rates.

Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemist's and Druggist's Diary* next published. Subscriptions may begin any month. Single copy, 6d.; Summer or Winter Number, 1s. *Diary*, 4s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 12 60 francs, franco.

Jährlicher Abonnementspreis: die Zeitung einmal wöchentlich, und des Notizkalender einmal im Jahre, 10 Mark, postfrei.

Precio de suscripción anual: el periódico una vez por semana, y el agenda una vez por año, 12-60 pesetas, franco.

Terms for advertising in THE CHEMIST AND DRUGGIST can be obtained on application to the Publisher at the

Head Office: 42 CANNON STREET, LONDON, E.C.

Telegrams: "Chemicus London." Telephone 852 Bank (two lines).

Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

CONTENTS: Vol. LXXIX., No. 27 (Series No. 1666).

[The folios in this List and in the Summary are those at the top of the pages, but references in the Text are to the Index folios at the bottom of the pages.]

	PAGE		PAGE
Almanacks and Diaries	63	Gazette	56
American Letter	54	German Letter	54
Australasian News	52	Information Department	58
Bankruptcy Report	56	Irish News	51
Births	57	Legal Reports	55
Books, New	70	Marriages	57
Business Changes	70	Medical Gleanings	69
Cancer and its Cure	63	Observations and Reflec- tions	59
Chemical Society	67	P.A.T.A. Council	58
College Notes	67	Personalities	64
Colonial and Foreign News	53	Pharmaceutical Society: North British Branch	65
Coming Events	68	Poisonings	93
Companies	56	Practical Notes and For- mulae	69
Corner for Students	48	Retrospect	96
Correspondence	93	Scientific Progress	58
Deaths	57	Scottish News	50
Deed of Arrangement	56	South African News	53
Editorial Articles:		Synthetic Sentences	70
Past and Present	60	Trade-marks	64
The Syphon Difficulty	61	Trade Notes	64
Methylated Spirit	62	Trade Report	70
Notes	62	Winter Session	68
English and Welsh News	49		
French News	51		

THE ILLUSTRATED PRICE-LIST

is one of the most effective ways of securing prompt and direct business, particularly from buyers abroad. For instance, a large buyer in some busy centre thousands of miles away from London has placed before him

An Attractive Inset

in the Winter Issue of THE CHEMIST AND DRUGGIST, containing illustrations and prices of goods he wants to sell. He has before him all he requires, a facsimile reproduction of the latest novelties and the prices. In nine cases out of ten he sends off the order at once, thus saving time and trouble and forestalling the persuasive eloquence of the representative of a competitive firm who may call a day or two later. Firms who have not already placed their orders for insets

In the Winter Issue, 1912,

with the Publisher, should write to him at once, as the publication date is January 27.

Summary of this Issue.

The more notable items only are dealt with.

Articles and Communications.

The advances in methylated spirit are due to the rises in prices of the raw materials (p. 62).

A suggestion as to representation on the Pharmaceutical Council *à propos* of the National Insurance Act is made on p. 93.

A pharmacist makes some pertinent suggestions regarding the standardising of Hospital Pharmacopœia preparations (p. 94).

In "Past and Present" we reflect on prominent events of the closing year, and the favourable conditions for 1912 (p. 60).

At this season syphon troubles arise on the squaring of accounts; hence the remarks in the editorial article on p. 61.

Anæsthetists recommend the three kinds of chloroform to be recognised by the British Pharmacopœia. In this connection we refer to a new American method of administration (p. 63).

Both the Corner for Students prizes go this month to Newcastle-on-Tyne, Mr. W. D. Clague and Mr. R. H. Denison being the winners. The "salt" was a mixture of red lead, potassium bichromate, and ammonium oxalate (p. 48).

The official report of Lord Haldane's speech on pharmacists has been revised, apparently (p. 62). "Xrayser II." shows how unbusinesslike it is not to have pharmaceutical representatives on the National Insurance Act Committees (p. 59).

News of the Week.

Mr. Alfred Coleman, of Paris, is dead (p. 51).

Italy is trying to boycott German chemicals (p. 53).

The liquidations of two chemist companies are referred to on p. 56.

The estates of several chemists in Scotland are the subjects of notes on pp. 50 and 51.

An appeal is to be taken against the judgment in the "Lux" and "Monkey Brand" cases (p. 49).

A transaction in spectacles decided by the Blackburn County Court Judge should be noted (p. 55).

A Departmental Committee is investigating the system under which Coroners' juries are summoned (p. 49).

German pharmacy is not the Utopia which some on this side of the ocean imagine it to be. See the notes from our correspondent on p. 54.

The British delegation at the Hague Opium Conference want restrictions to be placed on the manufacture and sale of morphine and cocaine (p. 53).

Mr. Stephen Darby, a veteran pharmacist, who studied under Liebig at Giessen and did some research work on his return, died this week. We also report the deaths of Mr. J. Barge, of Plymouth, and Mr. Richard Ker, of Stranraer (p. 57).

A pharmacist in Birmingham has been fined for selling borax containing an excessive amount of arsenic; this after the firm from whom he bought it were found not to have contravened the Sale of Food and Drugs Acts by selling the same article (p. 55).

The chief point of interest in our report of the meeting of the Chemical Society last week lies in a possible explanation for the occasional bursting of Winchester's of nitric acid. The remaining papers are mainly of technical interest. The Longstaff medal has been awarded to Dr. Brereton Baker (p. 67).

At the Scientific meeting of the Pharmaceutical Society in Edinburgh last week several papers on practical subjects were read, including creosote-and-phenol pills, deposit in senna infusion, benzene odour in cinnamon-water, and estimation of mercury ointment. With the discussions they are reported on pp. 65-67.

Trade and Market Matters.

A report is current that the tax on the collection of buchu on South African Crown lands has been advanced from 6d. to 1s. 6d. per lb. (p. 93).

In our Trade Report we briefly review some of the leading features of the chemical and drug trades during the year. The markets have been closed since our last, and business will not be fully resumed until the New Year (p. 90).

CORNER FOR STUDENTS.

Conducted by Leonard Dobbin, Ph.D.

All communications for this section should be addressed thus: "Corner for Students, 'The Chemist and Druggist,' 42 Cannon Street, London, E.C."

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, January 2, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, January 13. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

The analysis announced above forms the third exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact must be attested on their reports. Students who adopt a *nom de plume* must adhere to it throughout the tournament.

Report on December Analytical Exercise.

*The powder distributed to students on November 29 contained 2 parts by weight of red lead oxide, 3 parts of potassium bichromate, and 95 parts of ammonium oxalate. The calculated composition of such a mixture is:

Pb	2.72
K	0.53
NH ₄	24.15
O	0.28
Cr ₂ O ₇	1.47
C ₂ O ₄	58.81
H ₂ O	12.04
	100.00

The powder also contained, as an impurity, a small but distinct trace of calcium.

Samples of the powder were distributed to sixty-five students, and thirty reports were submitted for examination. All of those who sent in reports detected the presence of ammonium. The failures in the detection of the other constituents were: (a) Metallic radicals: Lead, 19; potassium, 1. (b) Acid radicals: Chromic, 7; oxalic, 4. Two students who detected chromium did not state that it was present as part of an acid radical. Seven students failed to report the evolution of water when the powder was heated in a dry test-tube.

The analysis of this mixture, which it will be seen consisted mainly of one salt with only relatively small quantities of other admixed substances, presented some features which were liable to mislead a too casual observer. Thus, when the powder was treated with water, a solution was obtained which had so well-marked an orange-yellow colour, due to the dissolved bichromate, that the presence of the finely divided but undissolved red lead, which settled slowly to the bottom on standing, was very generally overlooked. Consequently all but a few students described the powder as completely soluble in water. Then it very commonly happened, when hydrogen sulphide was passed through an acid solution

with a view to precipitating the sulphides of the copper and arsenic groups, that the concentration of free hydrochloric acid was so great that no precipitate of lead sulphide was formed and the presence of lead remained undetected. But the lead which was in solution made its presence apparent in the iron group, yielding there a black precipitate of lead sulphide when ammonium hydro-sulphide was added (or when ammonia was added to the acid solution containing hydrogen sulphide) and giving rise to a good deal of confusion.

The behaviour of the powder when boiled with moderately concentrated hydrochloric acid afforded some points of interest. Since the mixture contained two oxidising agents—the red lead and the bichromate—along with the easily oxidisable oxalate, boiling with hydrochloric acid brought about the reduction both of the bichromate and of the red lead, with the formation of chromic chloride and lead chloride respectively. The orange colour of the bichromate solution and the red colour of the oxide of lead disappearing, and a solution resulting with a pale greenish colour due to the chromic chloride. These reductions were probably effected partly by the oxalate and partly by the hydrochloric acid, since both are oxidisable.

The failures to detect the chromic-acid radical were more frequent than might have been expected, even although the proportion present was small. The strongly coloured aqueous solution and the characteristic change which this underwent when treated with hydrochloric acid and hydrogen sulphide ought to have led to its detection. In the systematic examination for metallic radicals, there were many failures to recognise chromium at the proper place. In some cases this was mainly due to the fact that the chromium was precipitated as hydroxide in the iron group along with lead sulphide (which made its appearance there under circumstances described above), and in the confusion occasioned by the latter it was overlooked. In other cases, however, ammonium chloride and excess of ammonia were added to solutions which did not contain hydrogen sulphide, and no precipitate of chromic hydroxide was observed. The reason was that chromic hydroxide is distinctly soluble in excess of ammonia, and, as the total quantity that could be precipitated in this case was small, the added excess of ammonia was more than enough wholly to prevent its precipitation. Had the excess of ammonia been removed by boiling until alkaline vapour just ceased to be evolved (as should always be done at this stage) a small precipitate of chromic hydroxide would have been obtained and could have been recognised with certainty.

When lead has been detected in a mixture, there seems to be a fatal fascination in the idea that it is present as lead acetate, and the acetic-acid radical is often reported present on too slender evidence. Several students who made specially careful examination for it on this occasion but obtained no positive result from the most characteristic test, kept clear of the allurements, but others were too easily convinced and fell into error in consequence.

A careful preliminary examination gave valuable hints and useful guidance for the systematic analysis, and those students who made such an examination were not slow to avail themselves of, and to profit by, the information with which it furnished them.

PRIZES.

The First Prize for the best analysis has been awarded to

W. D. CLAGUE, 5 Saville Row, Newcastle-on-Tyne.

The Second Prize has been awarded to

R. H. DENNISON, 23 Cardigan Terrace, Heaton, Newcastle-on-Tyne.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

1. Correspondents who are unqualified :

W. D. Clague (1st prize)	97	J. S. F.	80
R. H. Dennison (2nd prize)	96	Rego	80
Dunelmian	95	Atropin	79
Heroin	94	Chorlton	78
Red Lead	89	H. P. C.	74
Rainbow	83	L'Espérance	74
Victoria	88	Elad	67
Cinchona	87	En Avant	64
Symbiosis	87	Phœnix	61
C. Baker	83	Tents	59
Nihil	82	Tolut	52
Siva	81	Student	51
Fritz	80	R. L. B.	44

2. Correspondents who are qualified, or who have not indicated that they are unqualified.

Club Moss	93	Curious	26
Cobalt	63	Nitrox	92

TO CORRESPONDENTS.

DUNELMIAN, HEROIN, and Others.—We were not able to confirm the presence of the trace of a chloride which was somewhat commonly reported.

RED LEAD and NITRAX.—In testing for an acetate by aid of the ethyl-acetate test, it is necessary to distinguish carefully between the odour of vapour of alcohol and that of vapour of ethyl acetate, and it is desirable to make a blank test side by side with the actual test. Had you tried the cecodyl test you would not have been led to report an acetate present.

VICTORIA.—The reaction which led you to suppose that a trace of bismuth was present was almost certainly due to lead. You should have detected chromium in the precipitate you obtained in the iron group if the precipitation was properly carried out. See the general remarks above.

C. BAKER.—The dark precipitate you obtained in the iron group no doubt consisted partly of lead sulphide. See the general remarks above.

NILH.—We tested carefully for manganese by the fusion test with sodium carbonate and potassium nitrate, but failed to get a positive result. Note that calcium oxalate is white, not yellow.

SIVA.—The precipitate with silver nitrate, which you did not identify, consisted of silver oxalate, which is sparingly soluble in dilute nitric acid.

FRITZ.—The evolution of carbon monoxide and dioxide on heating the powder with concentrated sulphuric acid ought not to have escaped your observation. We would not describe the precipitate of silver chromate as chocolate-coloured.

REGO.—The precipitate you supposed to be silver chloride was really silver oxalate.

ATROPIN.—The deposit which you observed in the mixture obtained on adding water and sodium hydroxide to the powder was simply unaltered red lead. We could not detect any trace of the sulphuric-acid radical, and we think the precipitate you supposed to be barium sulphate really consisted of lead chloride.

CHORLTON.—The precipitate which you took to be zinc sulphide most likely consisted of sulphur separated from yellow ammonium sulphide solution by interaction with hydrochloric acid. The addition of dilute sulphuric acid to a solution of a chromate would not ordinarily turn the latter green: in the present instance, when the chromate was mixed with an oxalate, it only did so when the mixture was warmed.

H. P. C.—You report that the reddish precipitate produced by silver nitrate was soluble in hydrochloric acid. Probably you mean that the reddish colour disappeared on adding hydrochloric acid, but the precipitate would not "dissolve."

ELAD.—You observed an effervescence when the powder was warmed with concentrated sulphuric acid, but you do not appear to have made any very serious effort to determine the nature of the evolved gas. Had you done so, you ought to have detected the presence of the oxalate.

EN AVANT.—Read the first sentence of the reply to "Nihil."

PHŒNIX.—There is some confusion in your report (with regard to the supposed presence of a ferricyanide) which we are not able to unravel. The production of a green colour on adding potassium ferrocyanide to an acid solution would not indicate the presence of a ferricyanide in the latter. Almost any solution of potassium ferrocyanide which has stood for a considerable time will yield a green or blue solution when mixed with an acid, but this, of course, is an entirely different matter.

TENTS.—Read the second sentence of the reply to "Victoria."

TOLUT.—Test your manganese peroxide for the presence of a chloride—a very common impurity in the "recovered" peroxide.

STUDENT.—Although you include manganese and potassium in your list of metallic radicals detected, you do not state the evidence which led you to do so. You report the presence of a chloride as a main constituent, in spite of the fact that you found the precipitate produced by silver nitrate to be soluble in nitric acid.

R. L. B.—Apparently you mistook the green colour of the borax bead for the blue colour which cobalt compounds yield.

CLUB MOSS.—Seeing that you found a portion of the powder to be insoluble in water, you were scarcely justified in concluding that, since the chromic-acid radical was present, barium, strontium, and calcium must be absent.

COBALT.—See the last sentence of the reply to "Phœnix."

ENGLISH AND WELSH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

The Blackburn Guardians on December 23 referred an application for advance of salary from Mr. Chas. H. Hacking, Ph.C., dispenser at the Workhouse, to the Finance and Salaries Committee.

Mr. J. W. Taylor has been appointed by the Essex Education Committee analyst and chemical lecturer at the County Laboratories at a commencing salary of 200*l.* per annum. Mr. Taylor at present holds a similar position at the British Dairy Institute, Reading.

Messrs. M. Oldfield, Cornhill; Cornell & Cornell, Ltd., Tavern Street; and Mr. A. J. Last, Butter Market, chemists, Ipswich, announce that after January 6 they will close their establishments under the Shop Hours Act, on Saturdays at 1 P.M., and remain open on Wednesdays until 7 P.M.

The "Chemist" is the first who relates his "Tales of the Trade" in "Casell's Saturday Journal" of December 23. They have the usual slight basis of truth worked up with the use of much imagination. They reveal the chemist in a better light than is usual in the lay Press.

The employes of Spencer, Chapman & Messel, Ltd., Stratford, and W. Pearce & Sons, Limehouse, have presented Alderman W. Thorne, M.P., with a handsome silk umbrella, suitably inscribed, "in appreciation of his services which resulted in improvement in wages and working conditions."

"The Times" is informed that Messrs. Lever Bros., Ltd., have lodged notices of appeal from the judgment of Mr. Justice Joyce declining to restrain by injunction the alleged passing-off of soaps under the name of "Lux" or "Monkey Brand" in the proceedings against the Masbro' and Equitable Pioneers Society, Ltd., and others. See *C. & D.*, December 16, index folio 876.

The Local Government Board have written to the Battersea Borough Council relative to the appointment of analyst, now held by Mr. C. E. Cassal (*C. & D.*, November 11, index folio 700), asking for information in sufficient detail to enable the Board to form an opinion as to whether the new arrangements would be efficient. A reply is to be sent informing them that the Council desire to engage a public analyst at a remuneration of 500*l.* per annum for the analysis of not less than 1,000 samples.

The Jury System.

This departmental committee, which was recently appointed under the chairmanship of Lord Mersey, has already held one meeting, and its proceedings have been adjourned until January 5, when further evidence will be taken. In the course of the inquiry the committee will investigate the system under which juries are summoned in connection with coroners' inquests, and for this purpose will take the evidence of several coroners' officers, and possibly also of one or two coroners. With Lord Mersey there are associated on the inquiry Mr. E. Blackwell, C.B., Mr. T. Burchell, Mr. Ellis Davies, M.P., Mr. R. S. Gwynne, M.P., Mr. English Harrison, M.P., Mr. H. Hobhouse, Judge Parry, and Mr. P. Snowden, M.P.

Poison-licences.

Mr. Wilfrid M. Bear, of Tendring, Magham Down, Hailsham, advertised his intention of applying to the East Sussex County Council for a poison-licence.

The Bromley (Kent) Town Council renewed on December 20 four poison-licences. When the application made by Mr. W. Royle, of G. Weeks & Sons, under the new regulations came before the Council, Councillor Harris asked if the General Purposes Committee, before recommending that it be granted, had taken into consideration the reasonable requirements of the neighbourhood. No one seconded his motion that the application be refused, and the licence was accordingly granted.

Contracts.

Elham (Kent) Guardians.—Corbyn, Stacey & Co., Ltd., for drugs at 47*l.* 11*s.* 7*d.*

Bridlington Town Council.—Mr. R. T. Brown was appointed chemist to the Sanatorium for a year.

The Whitby Council School Managers.—Mason's Drug-stores, for the six months' supply of chemists' goods.

Eastry (Kent) Guardians.—Mr. A. E. Woodruff, chemist and druggist, Eastry, for three months' supply of chemists' sundries.

Maidstone Guardians.—Mr. F. J. Oliver, chemist and druggist, Maidstone, for the year's drug-supply, at 132*l.* 10*s.* 6*d.*

St. John's Hospital, Twickenham.—Mr. A. Feather, chemist and druggist, Twickenham, for the six months' supply of drugs.

Cheltenham Board of Guardians.—Sanitas Co., Ltd., for roll sulphur at 11*s.* per cwt.; McDougall Bros., for their contract disinfecting fluid at 2*s.* 6*d.* per gal.

Manchester Notes.

On Bank Holiday there was the usual demand for antidotes to counteract the effects of the festive season.

There is a movement on foot to start the ball rolling in regard to the formation of a local Assistants' Association by holding a social evening at a city café.

Most pharmacists seem to have had a good time and plenty of business this Christmas. In several cases records have been made as regards seasonal trade.

Mr. J. Corbett, the Salford Borough Engineer, has issued a warning to local oil users and merchants in regard to a possible leakage from their works or stores. He says that about 1,600 gals. of oil were skimmed from the sewage tanks within a few days.

The weather conditions during Christmas week have been "vile," the only crumb of comfort for the pharmacist being the boom in the sales of influenza-mixtures, cold-cures, and cough-remedies. A chemist who had a window-show of hot-water bottles did good business with them as Christmas gifts. One showcard read, "You can't be miserable if you use one of our hot-water bottles this Christmas."

The controversy over the Insurance Act continues to rage in the newspapers of Manchester and the North of England generally. One correspondent, who signs himself "Lancastrian," states: "The Bill is bound to be a failure from the chemists' point of view, as the sum set apart to pay the chemists' bill is not more than one-third enough. The chemists' account would embrace, as well as medicine, all medical requirements and surgical appliances, and the probable estimated cost of 7*s.* 6*d.* per head would be nearer the sum required than the problematical and doubtful sum of 1*s.* 6*d.* per head. Only last week one of my assistants called upon eleven chemists in the town for their signatures against the Insurance Bill, and he received ten signatures against the same. There is not much doubt but that the Bill will be killed by the chemists if it does not receive its death-blow from the doctors."

From Various Courts.

At Burslem last week, Joe Ball, miner, was remanded on a charge of attempting to murder his landlord, Mr. C. H. Fowler. It was stated that an analyst found enough arsenic in the soup submitted to him to kill nearly two hundred persons.

At Bournemouth last week, Edgar George Taylor, errand-boy, was fined 2*l.*, including costs, for stealing 1*l.* 15*s.* from the till of his employer, Mr. Charles Joseph Reid, chemist and druggist, 4 Lansdowne Crescent, Bournemouth. Another lad, named Thomas Talmage, was fined 1*l.*, including costs, for receiving 17*s.* 6*d.* of the money from Taylor.

At Buxton last week, Messrs. Vauncey & Fred Salt, chemists and druggists, 41 High Street, Buxton, were fined 10*s.* and costs for having in their possession for use in trade five unjust weights—viz., 2-lb., 1-lb., $\frac{1}{2}$ -lb., $\frac{1}{4}$ -lb., and 2-oz. weights. For the defence it was stated that the weights were bought about five years ago, since when defendants had spent 10*l.* in scales and weights. The shortage was entirely brought about by cleaning.

At Redruth County Court recently, Mr. Wm. Morley Martin, Ph.C., sued the Cornwall County Council for 50*l.* damages alleged to be due to defendants leaving the road between Scorrier and Redruth in a dangerous condition. It was stated on plaintiff's behalf that he, accompanied by his wife, ran into a pile of stones, with which the road was being repaired, and which was unlighted and unguarded. The stones weighed about 30 lb. each. Mrs. Martin had some teeth knocked out and her face cut. The hearing was adjourned until January 11.

SCOTTISH NEWS.

When sending newspapers to the Editor please mark the items of new 'u' which you desire to call his attention.

Brevities.

Mr. William Wallace Tytler, chemist, Ballater, has just been celebrating his silver wedding, which took place at Arbroath on December 21, 1886.

Claims against the late Francis Lyon Dewar, retired chemist, Marine Villa, Limekilns, Fife (formerly of Edinburgh), should be lodged with Mr. R. H. Wood, S.S.C., 81 George Street, Edinburgh.

Mr. James R. Sutherland, representative in Scotland for Messrs. Goodall, Backhouse & Co., has been appointed a director of Anderson's College Medical School for three years by the Trades House of Glasgow.

The transit labour strike which was in force in Dundee last week interfered a good deal with the drug-trade among others. Railway-stations and shipping-sheds were full up with goods for Christmas trade, but delivery was not made till this week.

By an outbreak of fire which occurred on Friday last in the premises of Messrs. Hamilton, Son & Co., chemical manufacturers, King Street, Dundee, damage was done to the estimated extent of 600*l.* It appears that Mr. Hamilton was working in the laboratory and had a small quantity of oil in a glass beaker over a gas burner. The oil boiled over and at once caught fire, spreading throughout the laboratory.

The petition presented in the Bill Chamber of the Court of Session, Edinburgh, has been granted by Lord Hunter, in which James Taylor, wholesale and export druggist, 132 Trongate, Glasgow, and the Glasgow Apothecaries' Co., Ltd., 32 and 24 Virginia Street, Glasgow, applied for the appointment of a *factor loco absentis* to Archibald Hamilton McNaught, chemist and druggist, 4 West Blackhall Street, Greenock; 37 Cathcart Street, Greenock; 20 Princes Street, Port Glasgow; and 43 Renfield Street, Glasgow. No answers were lodged to the petition, and Lord Hunter has appointed Mr. G. D. Stirling, C.A., 186 St. Vincent Street, Glasgow, to be *factor loco absentis*.

Edinburgh.

Some of the calendars sent out by local chemists are very tasteful, as usual. Mr. Heddle has an especially artistic example, and Mr. Cooper, Newhaven, has no fewer than five different varieties, all nicely turned out.

Boots, Ltd., in their local Press advertisements, have broken virgin soil this week. In advertising extract of malt they quote this preparation at 1*s.* 6*d.* per large jar, and 1*s.* 2*d.* for "second or store

quality." It is also stated that the shop at 102 Princes Street "will shortly be opened."

Messrs. James Pollard & Bird, C.A., 17 Duke Street, Edinburgh, have issued a circular to the creditors of W. S. Scobie, trading as James Scobie & Son, chemists and druggists, 38 Shandwick Place, Edinburgh, stating that at a meeting of the creditors held in their chambers they submitted a statement of affairs showing liabilities 841*l.* 3*s.* 11*d.*, of which 443*l.* 9*s.* 10*d.* is in respect of trade creditors and 397*l.* 14*s.* 1*d.* in respect of cash and other creditors. The assets consist of stock-in-trade, fittings, etc., 660*l.* 10*s.* 10*d.*, and other assets 15*l.*; showing a deficiency of 165*l.* 13*s.* 1*d.*, equal to an apparent dividend of 16*s.* in the £, subject to expenses. It was explained that Mr. Scobie had disposed of his business, but the amount realised was insufficient to meet his debts in full. Further, that he might have an interest in the estates of his late father and mother. It was resolved to attach this interest, if any, for the creditors, and Mr. Scobie granted a trust deed for their behoof in favour of Mr. Bird, who hopes to pay an immediate dividend of 10*s.* per £, or thereby.

IRISH NEWS.

When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.

Brevities.

Mr. Jas. Dickson, registered druggist, 352 Newtownards Road, Belfast, is removing shortly to larger premises at 357 on the opposite side of Newtownards Road.

Professor Gilbert T. Morgan, D.Sc., F.I.C., Assistant Professor of Chemistry in the Imperial College of Science and Technology, London, and Junior Secretary of the Chemical Society, has been appointed to the Chair of Chemistry in the Royal College of Science for Ireland, vacant by the retirement of Sir Walter Noel Hartley.

The Late Mr. Payne.

The Belfast Board of Guardians at the last meeting passed a resolution of sympathy with Mrs. Payne in her bereavement. Mrs. Payne was for many years a member of the Board.

At the Belfast Police Court on December 21, Mr. Garrett Nagle, R.M., the stipendiary magistrate, referred to the death of Mr. J. C. C. Payne, Ph.C., J.P. He said Mr. Payne gave his time freely to the work of the Society for the Prevention of Cruelty to Children, and they knew what his efforts were and how incalculable was his energy. He was a man of singular uprightness and honour in all walks of life, and was loved for his goodness of heart. His work in the Children's Court had been most valuable. Mr. John F. McKenna, J.P., and Mr. Edward Emerson, J.P., concurred with what Mr. Nagle had said, and Mr. D. F. Spiller, on behalf of the legal profession, said Mr. Payne was a conscientious and sympathetic magistrate, and did a great deal of good. Mr. Robert McHenry, chief clerk, also spoke.

FRENCH NEWS.

From the "C. & D." Paris Correspondent.)

LOST RADIUM.—The Society of Radium in Paris is offering a reward of 1,000*f.* (40*l.*) to anyone who returns to them a platinum tube containing a quantity of radium estimated as worth 40,000*f.* (1,600*l.*) It appears that a few days ago an employé of the Society was sent with the radium to the house of a doctor and lost it during his journey on the underground railway. Advertisements have been published in the Paris newspapers pointing out the risk of handling the tube without taking the needful precautions.

PARIS SOCIETY OF PHARMACY.—At the meeting of this Society this month M. Blomquist, President of the Swedish Society of Pharmacy, was, on the occasion of its fiftieth anniversary, elected a corresponding member of the Paris Society. A telegram of congratulation was also addressed to the Swedish Society at Stockholm, where the members held a general meeting and banquet to celebrate the occasion. At the same meeting Professor

Moureu was elected Vice-President of the Paris Society of Pharmacy for 1912.

FOR THE CONTROL OF LIGHT.—The new Committee on Natural and Artificial Lighting, which is to be attached to the Ministry of the Interior (the Paris "Home Office"), includes Professor Broca, Dr. Chevallereau, of the Quinze Vingts Hospital (Institution for the Blind), MM. Delage (of the Gas Lighting Co.), Lameraud, Seguin, Tavernier (of the Electric Lighting Co.), and the President and Secretary of the French Oculists' Association (Professor Motais and M. Coste). The Chairman is Professor Gariel, of the Paris Faculty of Medicine. The particular object of this committee is to study—

- (1) The existing methods of lighting from a hygienic and ocular point of view.
- (2) The composition and hygienic qualities of the same; harmful gases, heat developed by combustion, etc.
- (3) The minimum of artificial light consistent with normal eyesight.
- (4) The most practical methods of measuring lighting power.
- (5) The best methods of application of various existing means of lighting to principal trades and industries.
- (6) Shortsight and blindness, their causes; prevention of the former, etc.

The general idea seems to be to compare the values and relative qualities of lighting by oil, paraffin, gas (incandescent and other burners), electricity, etc.

OBITUARY.—The death is announced in Paris of the distinguished botanist, M. Bornet, who was the senior member of the botanical section of the Paris Academy of Sciences. He was born in 1828, and was the author of a number of published works on botany. He was a great friend of Professor Guignard, the well-known Honorary Director of the Paris Superior School of Pharmacy, who is himself a botanist of great distinction.—The death occurred in Paris last Saturday, at the age of seventy, of Mr. Alfred Coleman, one of the leading members of the British Colony here. Mr. Coleman was a native of Norwich, where he served his apprenticeship to a chemist, and for a time he was engaged as an assistant to Allen & Hanburys, in London. This was some forty-five years ago, as Mr. Coleman came to Paris in 1870, where he has since had a very successful business career as a merchant, his specialities being American products. The deceased gentleman had a considerable literary talent, and also took a leading part in any philanthropic work going on among the British Colony in Paris for many years past. He was also well known as the Honorary Secretary of the Hertford British Hospital here, which was founded and endowed by the late Sir Richard Wallace. Mr. Coleman was one of the first to enter Paris with the food convoys after the siege of 1870-71, and readily told anecdotes of that interesting period, on which subject he also occasionally gave lectures.

THE PONT-NEUF DRUGGISTS.—M. Poète, the head of the Paris Municipal Library in the Rue Sévigné, annually organises a little exhibition of prints, drawings, documents, etc., illustrating some epoch in the history of the French capital. The 1911 exhibition illustrates the Paris of Louis XIV. and the famous Pont-Neuf, with its booths and charlatans. M. Ginisty remarks that these "opérateurs" were not always quacks, and that some of them made money enough to become veritable *bourgeois*. They were in those days of close corporations, really the first to grasp the financial possibilities of the direct appeal to the public in the case of remedies for the ills the flesh is heir to. Take, for instance, Christopher Contugi, who inherited the secret of orvietan—the famous electuary familiar to all readers of Scott's "Kenilworth." He played the fool in front of his booth, pretended to inflict upon himself horrible wounds, at once staunching by his invaluable preparation. But once the remedy had really "caught on" the whilom buffoon became the keen business man with capital at command, and even (sign of honorable respectability in those days) a coat of arms—a three-peaked mountain of gold on an azure ground. His son, Charles Louis, was doctor-regent of the Faculty of Paris, and Professor of Pharmacy. The thesis he submitted for his diploma bore on the question "Est-ne vinum lacti superbibendum?" In another generation the Contugi were nobles and soldiers of the king.

AUSTRALASIAN NEWS.

"The Chemist and Druggist" is regularly supplied by order to all the members of nine Societies of Chemists in Australia and New Zealand, as well as to other Chemists in business there.

Fiji.

TWO ORDINANCES of some interest to pharmacists have recently been issued. The Liquor Ordinance, 1911, consolidates and amends the previous law, "liquor" being defined as including any spirituous or fermented liquor and any liquid used for drinking which contains more than 2 per cent. of proof spirit. In most of the Licensing Acts of other countries provision is made that a pharmacist may sell liquor for medicinal purposes, but no such provision is included here. The only approach to it is in the section which prohibits the supply of liquor to natives, and, among the five exemptions there given, a medical man may prescribe or give liquor in doses to a patient for the purpose of curing or preventing disease or promoting restoration of health, and a person, not a publican or a person employed by him, may gratuitously prescribe or give liquor as a medicine in case of emergency or distress. The other ordinance is the Licensing Ordinance, 1911, which provides that every person exercising any of the professions, trades, or callings enumerated in the schedules shall take out a licence and pay a licence-fee at the rate per year set forth in the schedules. The chemist and druggist is to pay 20*l.* a year.

New Zealand.

THE FUNCTIONS OF A PHARMACY BOARD.—It is interesting to notice, says the "C. D. A.," that in New Zealand, and in New Zealand alone, it is urged that it is the duty of the Pharmacy Board to provide for the education of students, and not merely for their examination. In the Australian States it is recognised that it is the duty of the Pharmacy Board to examine and of the Society to provide the education. In the United Kingdom the Pharmaceutical Society was already in existence and chartered before the passing of the Pharmacy Act imposing compulsory examination. This led to a combination of the two functions, examination and the provision of education, but in the provision of education the Society was soon found to fall short of the requirements of the community, and within a very short time of the passing of the Act of 1868 private schools of pharmacy were established. In Australia and New Zealand a different start was made, and it is only in Western Australia that anything approximating to the home conditions existed at the time of the passing of the Act. If the Pharmacy Acts are studied it will be seen that the function of the Pharmacy Board was never to provide for education or to study the general interests of pharmacists. Its duty was simply to stand between pharmacists and the general public and ensure the qualification of the pharmacists for the safety of the latter.

DENTAL REGISTRATION.—In 1910 an Act was passed providing for the registration without examination or on a modified examination of certain dental students and others who, at the time of the passing of the Dentists Act of 1904, were *bona fide* in practice as dentists in New Zealand, or *bona-fide* apprentices to dentists. The limitation imposed was that they must have been so engaged at the time or within fifteen months subsequent to the passing of the Dentists Act, 1904. A Bill has now been introduced providing that anyone who fulfilled these conditions at any time prior to the Act may enjoy the privileges. The Act of 1910 provided that application must be made within three months after the coming into operation of the Act, and no person was to be registered after September 30, 1911. This it is proposed to alter to make it read "before the 31st day of March 1912," and carry on the time of registration until September 1912. Fresh conditions are also introduced that any person born in New Zealand who, at the time of the passing of the Dentists Act, 1904, was a *bona-fide* student of dentistry in any foreign dental university or college for not less than three years, and has passed an examination, or was a *bona-fide* apprentice or student of dentistry in any

of the Australian States, and has passed an examination, shall be entitled, on payment of the prescribed fee, to be registered under the principal Act, if, prior to the passing of the Bill, that person had applied for and been refused a certificate of recognition under Section 15 of the principal Act.

Queensland.

MR. J. G. TINGLE is now in Toowoomba, Queensland, as partner with a chemist.

South Australia.

THE ELECTIONS.—The new member of the House of Representatives, Mr. D. J. Gordon, who achieved such a marked victory for the constituency of Boothby, though not a pharmacist, is familiar with pharmaceutical matters and pharmacists. For some years he acted as South Australian correspondent for "The Chemist and Druggist of Australia," and regularly reported the meetings of the Pharmacy Board and the Pharmaceutical Society.

FRIENDLY SOCIETIES are providing a central dispensary at Unity Chambers, Currie Street, Adelaide. The fittings are to be of Australian manufacture as far as possible. All dispensing is to be done on marble tables, states a local newspaper. Hitherto doctors have been paid 10*s.* per head for members of lodges, and out of this have paid 1*s.* 2*d.* per head to chemists. As the average price of the prescriptions made up has been 9*d.*, this looks as if the average lodge member has only had one prescription and a half in each year. The lodges offer the doctors 7*s.* for their work, and 3*s.* is to be applied to the dispensary. Practically all the doctors in Adelaide and suburbs signed a declaration that they would not accept these terms; but the Friendly Societies assert that they have had sufficient applications for appointments of the thirty medical officers at 750*l.* per annum, each with the right of private practice. Some of the strongest lodges have not joined the dispensary moment, preferring to retain the services of the medical officers who have been with them for many years.

Tasmania.

EARLY CLOSING.—The chemists of Hobart have petitioned that they should be taken out of the exemption clause and brought under the general clauses of the Shop-closing Bill. It is provided that chemists and druggists, except as the cause of urgent necessity, shall be closed at 1 p.m. on the weekly half-holiday, and with them are classed florists, newsvendors, and fish and oyster shops. Food and refreshment shops are entirely exempt from the statutory half-holiday.

Victoria.

"RECORDED" DENTISTS under the Dentists Act, 1910, number, according to a Parliamentary return, about 250. Of these thirty-five are pharmacists and twelve are women.

PERSONAL.—At the International Congress of Applied Chemistry, to be held at New York in 1912, Mr. W. Russell Grimwade, B.Sc., Melbourne, will represent the University of Melbourne.

PHARMACEUTICAL APPRENTICESHIP.—Although the Apprenticeship Bill introduced into the Victorian Parliament was held over, it is certain to be introduced again next Session. The general suggestion of the Bill is that the Governor-in-Council should appoint a Commission of eleven members as an Apprenticeship Commission, whose duty it will be to decide the conditions of apprenticeship generally, the pay, the age of apprentices, the examinations, and the trades in which apprentices may be employed. It is only when the Commission recommends the Governor-in-Council to bring a trade under the new Bill that the Governor will be able to act and alter the existing law as far as that trade is concerned. Except in such a case apprenticeship will remain as at present, and it does not seem at all likely that pharmaceutical apprentices will be interfered with.

Western Australia.

A BILL to regulate the practice of veterinary surgery is one of the measures promised by the Ministry.

SOUTH AFRICAN NEWS.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is regularly supplied by order to all the members of the seven Societies and Association* of Chemists in British South Africa, as well as to other chemists in business there.

Cape Province.

CONTRACT.—Messrs. Petersen, Ltd., Cape Town, have obtained the contract for the supply of drugs, etc., to the Western system of the South African Railways.

UNG. RUSCI Co.—Writing in regard to his communication to the Pharmaceutical Society on tar products reported in the *C. & D.*, November 18, index folio 737, Mr. Harold R. Peck says the report is erroneous. Ung. rusci co. referred to was that of the Extra Pharmacopœia, p. 555, which in our report was given as in that work, where "Beech Tar" is printed instead of "Birch Tar," a circumstance which appears to explain the trouble at the Cape. Mr. Peck adds:

"A local medical practitioner has been continually prescribing this ointment, and the variation in the ointments dispensed has been largely caused through this error. Some pharmacists have dispensed it as printed, using ol. fagi (beech tar), whereas others used ol. rusci or ol. betulæ (birch tar). Imagine our difficulty until I was able to communicate with Dr. Martindale, the answer to which arrived in time for me to place the same before our members."

SOUTH AFRICAN DEFENCE SCHEME.—Under this scheme it is proposed that all able-bodied citizens in the Union shall be eligible for service. In the event of an insufficient number of men volunteering for service the authorities can take a ballot of the names of those eligible to serve and those whose names are drawn will have to enter into compulsory training. As many chemists drawn for service would find it almost impossible to find qualified managers for their pharmacies it is considered that some way of excluding them from the Bill should be put in it before it passes through Parliament. The chemists are patriotic citizens, but it is felt that they are called upon to make too great a sacrifice to imperil their profession for a training which in all likelihood will never be of any use to their country or to the Empire.

THE CAPE TOWN PHOTOGRAPHIC SOCIETY celebrated its "coming of age" by a most attractive exhibition. There were six classes of photographs, viz., pictorial, technical and scientific, colour photographs, lantern slides, stereoscopic, and one for those who have not received a prize at any recognised exhibition. There is also a class for Boy Scouts, as well as one for gum prints. The exhibits included a particularly noticeable one by Messrs. Burroughs Wellcome & Co. of tabloid and soloid photographic products and photographic outfits. Messrs. Lennon, Ltd., showed some well-executed enlargements on "Union" bromide paper, and a number of interesting pictures of yachts and prints were also shown on the "Union" Gas-light Paper, Self-toning Paper, and P.O.P., as well as cameras, a selection of developers, etc. The stall of Messrs. Heynes Mathew, Ltd., was replete with photographic apparatus and accessories, from big field cameras to minute pocket outfits. All the popular brands of printing paper were also shown here.

Natal.

POISONING CHARGE.—The hearing at Maritzburg of the charge of culpable homicide against William Cook (*C. & D.*, December 23, index folio 911) was continued on November 29, when accused was formally committed for trial, bail being fixed at 200*l.* During the evidence the Government pathologist, Mr. Park-Ross, stated that he received five cachets, each containing 8.8 grains salol and 2.4 grains of strychnine hydrochloride. Defendant put in a statement in the course of which he stated that he dispensed the prescription in question on November 8 in order to help the ordinary dispenser, Mr. Watts. Mr. Cook added:

The medicine was to be made up into cachets, each to contain salol 10 grains, and quinine hydrochloride 2½ grains. I

weighed out the required quantity of salol, and placed it in a mortar, and then looked for the necessary hydrochloride of quinine. Next to the ordinary stock-bottle of sulphate of quinine was a bottle which I took for an original (1 oz.) bottle of hydrochloride of quinine. I weighed out the required quantity and mixed it with salol, and divided the mixture (by weighing) into six doses, which I put into cachets. After giving the medicine to the native servant I left the store for my lunch, at about 12.45. On returning an hour later I was told that a telephone message had been received stating that Mr. Arbuthnot was in pain and inquiring if anything could be wrong with the medicine. On hearing this I looked at the bottles out of which I had taken the drugs, and, to my horror, found that the bottle which I really thought contained hydrochloride of quinine had contained hydrochloride of strychnine. These two drugs are often imported in 1-oz. bottles, almost identical in shape and size. . . . I cannot understand how the strychnine bottle came to be in the place in which I found it. It is never kept there, and we very rarely, if ever, use it in this form for dispensing. Had I required a salt of strychnine, I should have looked for it either in the "Poison" cupboard or in the wholesale department, where it is also kept in a locked cupboard. I certainly would not have expected to find it on the ordinary shelves. On looking later for the "hydrochloride of quinine" on the dispensing counter, I found none. The probable explanation of this is that this salt of quinine is not so continually used as the sulphate, and probably on the last bottle being emptied it was not replaced by a full one.

Transvaal.

NEW BRANCH BUSINESS.—Messrs. A. A. Bones & Co., Ltd., opened their fourth pharmacy in Pretoria recently. The new branch is in Arcadia, the fashionable suburb, and near the new Union Buildings.

COLONIAL AND FOREIGN NEWS.

PHARMACIES IN RUSSIA.—A Bill providing for an alteration in the conditions of tenure of pharmacies in Russia has been accepted by the Duma Commission, with an amendment forbidding the sale, mortgage, or lease of pharmacies opened by the town or country district authorities.

THE SITTINGS of the Opium Conference at The Hague have been suspended until January 8, when work will be resumed. We understand that the British delegation urged the consideration of the question of the imposition of restrictions upon the manufacture and sale of morphine and cocaine and their derivatives. Sir William Collins had the honour of being appointed Chairman of the Technical Commission, and he was also one of the five representatives of the twelve nations whose interests have been before the Commission appointed as an editorial committee to put the articles of the Commission into proper form. For this purpose Sir William will return to The Hague for the meeting on January 8, when the signatories of the international representatives will be appended to the resolutions which have been agreed to.

ITALIAN BOYCOTT OF FOREIGN MEDICINES.—The Milan Medical Association declares that all foreign preparations (especially those of German origin) will be boycotted unless the calumnies against the Italian Military Medical Corps alleged to have been published in the German Press are repudiated. The Genoese Medical University authorities are stated to have made a similar decision, and it is expected that medical men in various centres will adhere to the movement. Some of the large German pharmaceutical houses are said to be already feeling the effects of the agitation. In this connection a report from the Austro-Hungarian Consulate at Milan is of interest, as this tries to show that Italy can produce most of its pharmaceutical requirements itself. Mannite, sugar of milk, tartaric acid, and citric acid are produced largely in Italy, and as regards citric acid Italy should be independent of England. It is also stated that Italy need no longer import mercury, bismuth and iron salts, chloroform, ether, and medicinal extracts. Lactic acid is imported, but lactates are made in the country. Quinine salts are still imported mainly from Germany, while other alkaloids, such as caffeine, cocaine, morphine, are also of foreign origin.

OUR GERMAN LETTER.

(Special Correspondence to the "C. & D.")

German Pharmaceutical Association.—The general meeting of the Deutsche Pharmaceutische Gesellschaft took place recently in the Vereinshaus in Berlin under the presidency of Professor Thoms. The yearly report and accounts were submitted, the latter showing a credit balance of 10,490m. The membership was stated to have risen, and is expected shortly to exceed 1,000 persons. The Association has joined the Federation Internationale Pharmaceutique, and it was stated that the Thoms fund amounts to 187*l.*, this having been contributed to by wholesale pharmaceutical firms. The interest of the fund is to be spent in the promotion of the interests of pharmacy, at the discretion of the President. As a result of the ballot which followed, Professor Thoms was re-elected President.

The Pharmaceutical Crisis.—Confronted by competitors jealous of her privileged position, dissatisfaction rampant within the ranks of her disciples, and, lastly, attacks by members on her fundamental principles—such is the picture of the crisis which German pharmacy is at present undergoing. The economic position of the pharmacist has retrogressed, but it is generally assumed that his integrity is as it was, and his reliability in all questions affecting the supply of medicines has been insisted upon in and out of season; indeed, it would appear as if the apotheker arrogated unto himself of all professions the sole monopoly of being trustworthy in all his business dealings. The insistence laid on this pharmaceutical virtue in opposing the claims of the druggists for the right to sell a greater number of popular remedies, and the mode of warfare against the latter, consisting in denouncing any transgressions to the police, have naturally led to very strained relations between both parties, with the result that the druggists, too, have adopted the same tactics with the view of shaking public confidence in the apotheker's much-vaunted reliability. Pharmacists have recognised that this mode of warfare does not redound to their credit, and have publicly expressed their disapproval of the continuance of this campaign of denunciations.

Substitution.—Every profession numbers within its ranks a few black sheep, but to the honour of the German pharmacist it can be said that the instances in which his professional integrity is called in doubt are few and far between. The question of the substitution of protected synthetics, the chief point of accusation levied against the apotheker of recent years, is a very vexed subject. The therapeutic agents which modern chemistry has elaborated are prescribed to an extent which is undreamt of in Great Britain, and a considerable number of them have acquired an established position as popular remedies. In many cases the sick clubs insist that only the equivalent substitutes, issued under the chemical designation of the corresponding protected product, should be dispensed; on the other hand, the public are acquainted with the protected name, and demand the preparation under the usual trade-mark. The difference in cost is in many instances considerable, and, as the substitutes are usually warranted to be chemically identical with the registered product, the temptation to substitute is certainly great, in some cases even substitution occurs through ignorance. Up to the present the chemical firms which have traced cases of this kind have usually abstained from taking proceedings against the offending apotheker, and the matter has been settled privately, the pharmacist agreeing to pay a contribution to some charitable institution.

The Uncompromising Hostility of the pharmacists to the manufacturing interests has not been without influence on the resolution now adopted by the Association of Manufacturers of Protected Articles, according to which all cases of substitution discovered will in future be brought before the courts, and the 210 firms belonging to this Association have unanimously decided that any case of substitution coming to the notice of a member must be reported to the board. This Association, which in some respects resembles the P.A.T.A., states that substitution damages not only the manufacturer, but principally the public and the honest retailer. Attention is also drawn to the fact that hitherto it has willingly abstained from taking proceedings against an offender in cases in which the latter, or his society, has pleaded for leniency. The first case of this kind against a pharmacist has been dealt with by the Court at Treves, with the result that the defendant was sentenced to the highest penalty provided by the law.

The Case, which has caused considerable surprise among the profession, as it reveals a happily unparalleled state

of affairs, proved that the apotheker in question had transgressed against no fewer than four distinct provisions of various laws. Instead of selling Duny's China Calisaya Elixier, he filled up original empty bottles with a preparation made up by himself according to a formula issued by the German Apotheker Verein. In doing this he transgressed against the law for the repression of unfair competition, the trademark law, and the pharmaceutical regulations (by substituting another preparation for the one prescribed). In addition to this, it was proved that he had on several occasions charged more than the amounts established in the official prescription tariff. For the first offence he was sentenced to 15*l.* fine or thirty days' imprisonment, and for the second to a fine of 7*l.* 10*s.* or fifteen days' arrest, and the judgment is to be published at his cost once in a pharmaceutical and in two medical journals.

OUR AMERICAN LETTER.

(Special Correspondence to the "C. & D.")

Dr. James H. Beal, who was chosen at the last meeting of the American Pharmaceutical Association to become general secretary and editor of the new "Journal of the American Pharmaceutical Association," is gradually resigning his appointments to give himself up entirely to his new work. The other day he dropped the Chair of Pharmacy in the Pittsburg College of Pharmacy. Professor Louis Sallbach has been appointed to succeed him.

Seidlitz Powders.—Some of the drug inspectors have been finding that the Seidlitz powders on the market are not what they ought to be. They betray evidences of having been carelessly weighed, so that they are not only short in quantity, but are not properly adjusted to make a perfect chemical reaction when mixed. Some of the powders made by the American Druggists' Syndicate have been examined by Charles M. Ford, Drug Inspector of Colorado, and he has found that the blue papers weigh from 9.6 to 9.8 grams instead of 10.33 grams. The white papers weigh from 1.94 to 2.39 grams instead of 2.25 grams.

Long-drawn-out Law-case.—A damage-suit against a pharmacist has been hanging fire in the New York courts for six years. Damages of \$25,000 are asked on behalf of a man who, taking a prescription which had been wrongly filled by the druggist, was alleged to have been driven insane. After six years of waiting the druggist asked the other day that the suit be dismissed for lack of prosecution, but the plaintiff's attorney replied that he had waited because he thought the injured man might regain his sanity, and be able to testify at the trial. There now seems little probability of this, and the case was ordered by the judge to be carried to completion.

How Smuggled Opium Reaches the U.S.A.—Considerable quantities of contraband opium are smuggled into the United States from China, but the U.S. Government have been unable to find out how it reaches them. It has been left to Comte G. de Galember, Commissioner of Customs in China, to tell them. He states (according to the San Francisco correspondent of the "New York Commercial") that "it is sent out in ship-loads, ships especially chartered by the opium ring which operate between the port of Macao, China, and various ports in Mexico, and then smuggled across the Mexican border into the United States. Macao being a Portuguese port in China, the enormous opium traffic originates there, and is a source of immense revenue to the men engaged in the illicit traffic. I have knowledge of many shipments taken out of Macao destined for Mexico which, if successfully smuggled into the United States, would be worth \$2,000,000."

Proprietary-medicine's Statistics.—The Government Census Bureau in Washington has just issued the statistics regarding the size and growth of the patent-medicine industry during the five-year period from 1904 to 1909. These five years were the time when a vigorous campaign against patent medicines was carried on all over the country, but so far as the industry as a whole is concerned it would seem from the figures now available that it has progressed rather than retrogressed. The number of establishments has increased by 31 per cent., the amount of capital invested by 32 per cent., the cost of material used by 28 per cent., the value of the products turned out by 21 per cent., and the salaries and wages by 50 per cent. The annual sales of proprietary medicines amounted in 1909 to \$141,942,000. To the economic student the incidental fact is interesting to notice that the rate of payment for both labourers and salaried men was noticeably increased.

LEGAL REPORTS.

TRADE LAW.

A Mistake in the Purchase of Land.—Judge R. Brown, at Crewe County Court last week, heard an action brought by Mr. Matthew Henry Fox, Ph.C., Haslington, against Sir Delves Broughton, Bart., of Doddington Hall, Cheshire, to enforce the specific performance of a contract for the sale of land. At the recent sale by public auction of land at Haslington forming part of the Doddington Estate the plaintiff became purchaser of a field, for which he bid 170*l.* Immediately afterwards it was found that a mistake had been made, and that the reserved price had been fixed at 375*l.* The plaintiff was informed of this mistake by one of the auctioneers, and when he went to sign the contract and pay a deposit the solicitor would not accept. The Judge asked counsel to give him a case where, through an innocent mistake, the Court had granted specific performance of a contract. Counsel said he could not. Judgment was reserved.

An Order for Spectacles.—Judge Hans Hamilton delivered judgment at Blackburn County Court on December 22 in the action in which Richard A. Heyes, pawnbroker, of Moss Street, Blackburn, and of Clitheroe, sought for the rescission of a contract made with Joseph Levy, wholesale optician, of Birmingham, on the ground of misrepresentation. Plaintiff was supplied with goods of the value of 8*l.* 3*s.* 9*d.*, and a testing-case "as a free gift." He asserted that the former were 50 per cent. over their proper value, and that the latter was useless to him for testing purposes. The Judge said after careful consideration he found plaintiff had made out his case. Plaintiff, by the fraudulent misrepresentation of defendant, was induced to enter into a contract to purchase spectacle frames and fitting accessories to enable him to carry on business as an optician. Defendant offered, as a bait, certain try-glasses as a free gift, but he was of opinion, and so held, that the contract was all one, notwithstanding that it was reduced to writing in two documents. "The defendant," added the Judge, "misrepresented the value, the use, and the advantage of the goods, the misrepresentation being such that but for them he (plaintiff) would not have entered into the contract at all. The statements made by the defendant were misleading and false, and were made advisedly with the intention of defrauding the plaintiff. I am not disposed to favour such improper and sharp practices, and I admit plaintiff's right to have rescinded a contract born in fraud and misrepresentation. The goods were not able to fulfil what was intended, and were incapable to enable the plaintiff to do what was represented by the defendant, and the defendant knew he was, by his misrepresentation, taking advantage of and defrauding plaintiff. I give judgment to plaintiff with costs." Leave to appeal was refused.

Sale of Food and Drugs Acts.

BORAX.

Before the Birmingham Magistrates on Friday, December 22, the Francis Williams Oil Co., Broad Street, Birmingham, were summoned for selling borax not of the nature, substance, and quality of the article demanded, as it contained 200 parts of arsenic per million.

Mr. Prideaux, who prosecuted on behalf of the Corporation Health Committee, said that the sample of borax complained of had not been sufficiently purified to eliminate all the arsenic, the quantity contained being large enough to have an injurious effect on people who consumed it in such things as sausages and butter. Arsenic was a cumulative poison, and though perhaps nobody would be injuriously affected by one day's food, serious consequences might ensue if consumed as food over a long period. The standard laid down by the British Pharmacopœia made this clear.

Mr. Dale (who appeared for defendants) urged that statements of the contents of the B.P. were not evidence, which could only be given by someone who had a knowledge of the subject, and not by the production of a book.

Mr. Short (the presiding magistrate) said the B.P. was the general standard taken in dealing with such matters, but Mr. Dale submitted that it was improperly taken, and he objected to it.

Mr. Prideaux replied that he could cite many cases in which it was held that the B.P. fixed the standard, but in the present case he intended to call the city analyst and a medical witness. The point was that there ought not

to be any characteristic reaction for arsenic in borax. Of course, there could be no objection to selling the borax for commercial use, but it should be so labelled, and should not be used as a preservative. People who wanted an absolutely pure article did not go to such firms as the defendants for it, who were oil and colour merchants, but small chemists obtained supplies at such places, and there was a danger that they might retail it to the public as pure borax.

Mr. J. F. Liverseege, F.I.C., the city analyst, in the course of his evidence, said the arsenic present in the sample was equivalent to 200 parts per million. In answer to the Chairman, Mr. Liverseege said borax as a natural product contained arsenic; it was a question of purification. In cross-examination by Mr. Dale, witness said borax was used for medical as well as for commercial purposes. For mixing with honey, the B.P. gave the proportion as 1 of borax in 9½.

Mr. Dale: Wouldn't there be a difficulty in getting the honey to take much more?—Mr. Liverseege: Well, it might not be an elegant pharmaceutical preparation, but I have made no experiments. The ordinary housewife would not weigh it. She would simply mix it up. Continuing, Mr. Liverseege said he could not say how much of the borax in question a person would have to take internally to make the dose fatal. It was certainly undesirable to have a powerful drug like arsenic in substances used for food. Exactly what would be the minimum dose to produce injury he could not say. He was bound to describe the borax as adulterated, inasmuch as it was not of the nature, substance, and quality demanded. The sample was rather a bad one, even commercially, but it would be quite proper for laundry purposes. It ought to be stated on the label whether the borax was for commercial or medicinal purposes. He did not think it fell upon the customer to ask specifically for what he wanted, inasmuch as the vendor knew more about it than the customer, and it was the vendor's duty to ascertain what the customer wanted. An ordinary customer would simply ask for borax, and would know nothing about its qualities.

Dr. William Sisam, assistant medical officer of health for the City, said the maximum dose of arsenic in the B.P. was a fifteenth of a grain, and it was dangerous to give as much as this to some people. Witness was cross-examined with regard to arsenic being a cumulative poison. There had, he said, been disagreement on the point, but lately a great deal of new information had been forthcoming. Some people could continue to take arsenic in increasing doses without injury, just as some people could take opium, but he did not regard this as showing that the effects were not cumulative. Roughly, he computed that a person would have to take 333 grains of the borax in question before he got a fifteenth of a grain of arsenic. Nobody was likely to take so much in a single dose. He had known the cumulative effect of very small quantities of arsenic, though he had never known of anyone suffering ill-effects from borax.—Replying to a question from the Bench, witness said a person requiring borax for a prescription would not, as a rule, get it from a drysalter. A doctor would naturally go to a wholesale chemist because of the more favourable terms.

The Magistrates, after a consultation in private, came to the conclusion that the witness, Elizabeth Pritchard, who purchased the borax, asked for borax, and she obtained that substance. The Chairman added that they were of opinion that when borax was required as a drug it should be specifically asked for by the purchaser, and so described on the label by the vendor. The summons was accordingly dismissed.

Mr. Prideaux asked the Bench to note his submission that there had been no evidence offered of the existence of any commercial standard for borax other than the B.P. standard, and further that he had not been called upon to argue the question as to whether the B.P. was the standard in the absence of any evidence.

Mr. Short said the Bench would state a case for the High Court. He thought a public discussion of the question would do good.

A second summons was then heard against George Christopher James, pharmaceutical chemist, Aston Road. The offence alleged was the same, and formal evidence was

given of the purchase of the borax and of the fact that the analysis showed arsenic equivalent to 200 per million.

Mr. Hirst, who defended, argued that in this, as in the preceding case, the purchaser was supplied with the article asked for. The defendant, who wished to carry on his business in a perfectly proper manner, purchased the borax from the Francis Williams Oil Co. in July, and paid the highest price for it.

The defendant was called, and said he paid the B.P. borax price for the article, and he certainly had no suspicion that it contained arsenic. He was under the impression that he was selling the finest English borax, and he put a label upon it to that effect. It was invoiced to him as powdered borax. By B.P. borax price, he meant the price charged by Southall Bros. & Barclay, who sold B.P. preparations. The price he paid should command the B.P. drug.

The Magistrates in this case imposed a fine of 5s. and costs. Mr. Short said they found the borax was sold in a chemist's shop as a drug labelled "Finest English borax," and that it was not of the nature, substance, and quality of the article demanded by the purchaser.

A summons against Samuel Thornley, Ltd., 54 Aston Street, alleging a similar offence, was withdrawn.

BANKRUPTCY REPORT.

Lillie Adeline Goss, 23A Old Bond Street, W., Beauty Specialist, trading as Mrs. Berkeley.—At the London Bankruptcy Court last week the first meeting of creditors was held, before Mr. G. W. Chapman, Official Receiver, under this failure. After dealing with the proofs of debt lodged, the Official Receiver stated that the debtor commenced business as a beauty specialist in June 1905 at 110 New Bond Street, W., in connection with a business started by the late Mr. S. F. Goss under the style of Morny Frères, chemists. Subsequently she removed to 31 Brook Street, Grosvenor Square, W., where she carried on business under the style of Mrs. Berkeley. She did not put any further capital into the business, but she had a good connection, although since the closing down of the business of Morny Frères at 110 New Bond Street, W., the business had considerably decreased, and she lost many of her customers through the removal. Eight months ago she closed the Brook Street place owing to ill-health. The business remained closed for some time, and she reopened at 23A Old Bond Street, W., and fitted up the place at a cost of 300*l.* borrowed from a lady on a bill of sale. So far as the trade was concerned, the business was successful, but heavy drawings for household and personal expenses brought her into the present difficulties, the liabilities entitled to rank being stated at 710*l.*, and the assets estimated at 20*l.* The matter was left in the hands of the Official Receiver for summary administration.

DEED OF ARRANGEMENT.

Johns, Thomas Edgar, 167 Winchester Road, Brislington, Bristol, Chemist and Druggist.—Trustee: A. Collins, 28 Baldwin Street, Bristol, C.A. Dated, December 20; filed, December 22. Liabilities unsecured, 293*l.*; estimated net assets, 87*l.* The creditors include: Evans, Gadd & Co., Bristol (26*l.*), H. Hodder & Co., Ltd. (29*l.*).

GAZETTE.

Partnerships Dissolved.

BIGNELL, J. H., and **OWEN, W.**, 108 Packington Street, Islington, London, N., manufacturing chemists, trading as J. Tye & Son.
BOWATER, W. H., and **FIELD, J. W.**, London Road, Leicester, surgeon dentists, under the style of Bowater & Field.
ROSS, T. A., and **WATKINS, A. P.**, Ventnor, physicians, surgeons, and general medical practitioners, under the style of Ross & Watkins.

The Bankruptcy Acts, 1883 and 1890.

ADJUDICATIONS.

CHAMBERLAIN, A. E., 37 Welbeck Street, London, W., surgeon.
DRIVER, J. G., 70-72 St. Mary's Road, Garston, Liverpool, chemist and druggist and wine and spirit merchant.

LIMITED COMPANIES.

New Companies Registered.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

FOX & SONS, LTD. (P.C.).—Capital 7,000*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggists, manufacturers of and dealers in photographic and other goods, etc. The first subscribers are C. E. Fox, 109-111 Bethnal Green Road, N.E., chemist; and C. W. N. Fox, 109-111 Bethnal Green Road, N.E., chemist. The first directors are C. E. Fox, C. W. N. Fox, and E. K. Fox. R.O., 109-111 Bethnal Green Road, N.E.

HAZLEHURST & SONS, LTD. (P.C.).—Capital 50,000*l.*, in 10*l.* shares. Objects: To carry on the business of soap and candle makers, seed-crushers, varnish-makers, soap, tallow, candle, oil, and glycerin refiners and dealers, etc., to acquire the business carried on as Hazlehurst's Soap Works by the United Alkali Co., Ltd. The subscribers are J. L. Ferguson and J. Greenhalgh, both of Rock Ferry, Cheshire, soap-manufacturers.

OXYGENITE SYNDICATE, LTD. (P.C.).—Registered December 21, with capital 3,150*l.* in 3,000 ordinary shares of 1*l.* each and 3,000 deferred shares of 1s. each. Objects: To carry on the business of manufacturers of and dealers in oxygenite, oxylite, oxygen, liquid air, etc. The subscribers are H. A. Back, 52 Jermyn Street, S.W., solicitor; and F. J. White, 6 St. Helen's Place, E.C., managing clerk.

Company News.

C. A. BAILEY, LTD., Arundel Cash Stores, Cavendish Place, Eastbourne, Chemists.—A meeting of the creditors was held on December 20 at the offices of the liquidator, Mr. P. Butchart, I.A., 49 Queen Victoria Street, E.C. A statement of affairs was presented by the liquidator showing liabilities to unsecured creditors 252*l.* 5s.; the claims of the preference creditors total 15*l.* The assets, consisting of stock in trade, fixtures, fittings, etc., were estimated as of the nominal value of 127*l.* He had endeavoured to find a purchaser for the business as a going concern, but had not been successful up to the present, and it might be that he would shortly have to close the premises and dispose of the assets for the best prices he could obtain. A resolution was passed confirming Mr. Butchart in his appointment as liquidator. The following are creditors: Burgoyne, Burdidges & Co. (26*l.*); R. A. Cripps (14*l.*); Corbyn, Stacey & Co., Ltd. (5*l.*); Baiss Bros. & Stevenson, Ltd. (8*l.*); E. E. Jackson (6*l.*); G. Boehm (8*l.*); Bourne, Johnson & Latimer (8*l.*); and Fassett & Johnson (5*l.*).

HAMILTON & CO., LTD., Chemists' and Druggists' Sundries-men, 21 Shaw Street, Greenock.—At an extraordinary general meeting of the shareholders of this company held at 29 Cathcart Street, Greenock, on December 18, it was resolved: "That it has been proved to the satisfaction of this meeting that the company cannot by reason of its liabilities continue its business, and that it is advisable to wind-up the same, and accordingly that the company be wound-up voluntarily." Mr. J. M. Kerr, C.A., Greenock, was appointed liquidator. A petition has been presented to the Second Division of the Court of Session at Edinburgh at the instance of Mr. Robert MacNaught, writer, 157 West George Street, Glasgow, for a supervision order in the winding-up. The company was registered in February 1910 with capital of 10,000*l.*, of which 160 preference shares of 1*l.* and 2,170 ordinary shares of 1*l.* fully paid were applied for. The petitioner is a creditor for 117*l.* 19s. 8*d.* He acted for a time as the secretary and was also the law agent of the company. The assets of the company amount to about 1,500*l.*, and its liabilities, he states, are believed to be considerably in excess of that amount. Several creditors have already obtained decree against the company for unpaid debts on which diligence is threatened. Among these are the Liverpool Lint Co. (31*l.* 11s. 6*d.*) and the Irwell and East Rubber Co., Ltd., Manchester (10*l.* 11s. 1*d.*). There are also bills granted by the company on which diligence may be immediately executed. The company has been already charged on a bill drawn on the company by Alfred Jay & Son, 166 Pentonville Road, King's Cross, London, and the days of charge have expired. Other actions are pending in the Sheriff Court of Glasgow against the company at the instance of several creditors. Their Lordships appointed the petition to be intimated and served, and answers to be lodged within eight days if so advised.

BIRTHS.

CHANDLER.—At 79 Chorley Road, Swinton, Manchester, on December 22, the wife of F. Le C. Chandler, pharmacist, of a son.

CLEWORTH.—At 37 Ducie Street, Greenheys, Manchester, on December 27, the wife of John Cleworth, pharmacist-photographer, of a son.

HUNT.—At 103 Magdalen Green, Dundee, on Christmas Eve, the wife of Henry J. Hunt, chemist and druggist (James Hardie & Son), of a daughter.

MARRIAGES.

CRAWFORD—MCLEAN.—At the Presbyterian Church, Singapore, on December 23, by the Rev. W. Runciman, M.A., B.D., George Whyte Crawford, chemist and druggist, manager of "The Pharmacy" and lecturer in pharmacy at the Straits and F.M.S. Medical School, Singapore, to Agnes Campbell (Lily), elder daughter of Mr. John Robertson McLean, Bellahouston, Glasgow.

FIELD—ROBINSON.—At St. Matthew's Church, Rugby, on December 18, Frank Colebrook Field, representative for Messrs. Sangers, to Dorothy Minnie, only daughter of Mr. E. G. Robinson, The Rosary, Rugby.

HODGSON—DALTON.—At Linthorpe Parish Church, Middlesbrough, by the Rev. Mr. Thompson, on December 24, George Cuthbert Hodgson, chemist and druggist, elder son of Mr. Cuthbert Hodgson, chemist and druggist, Sunderland, to Heleana, daughter of the late Mr. G. G. Dalton, builder, Eastbourne Villa, Linthorpe, Middlesbrough.

MACKENZIE—MITCHELL.—At 9 Stanley Street, Portobello, on December 22, by the Rev. F. H. Benson, B.A., Thos. Mackenzie, Ph.C., Inverness, to Jessie, elder daughter of the late Henry Mitchell, chemist, and Mrs. Mitchell, Loch-an-Eilan, Fairfield Road, Inverness.

DEATHS.

AITCHISON.—At "Sherwood," Beckenham, on December 22, Mr. James Aitchison, optician, aged fifty-two. Mr. Aitchison owned numerous optical businesses in London, and was connected with all the movements which had for their object the raising of the status of the profession. He was a liveryman of the Spectaclemakers' Company, a founder of the Optical Society, and the prime mover in the institution of the fund from which grants were made to the Northampton Institute for Optical Education.

BARGE.—At 53 Mutley Plain, Plymouth, on December 22, suddenly, Mr. John Barge, chemist and druggist, aged sixty-seven. Mr. Barge was born at Buckingham in 1844, served his apprenticeship with the late Mr. William Butler, of High Wycombe, and was registered in 1869. He went to Plymouth at the age of twenty-one as an assistant to the late Mr. R. C. Hill, Old Town Street, and some four years later opened a pharmacy at 6 Old Town Street, shortly afterwards also acquiring Mr. Hill's business, which he continued successfully up to quite recently. The pharmacy at 6 Old Town Street was transferred to Mutley Plain in 1882, and is one of the most handsome pharmacies in the West. Mr. Barge was highly respected in a wide circle for his geniality and integrity, and was well known to visitors to the British Pharmaceutical Conference. He had been a member of the Plymouth Association of Pharmacists since its formation, and had filled the offices of President and Treasurer. During the whole time he lived in Plymouth he was associated with Sherwell Congregational Church, of which he was a deacon, and his keen interest in the welfare of the town manifested itself through his connection with the Mercantile Association. Mr. Barge married in 1875, and is survived by a widow, a son (Mr. F. J. Barge), and two daughters. Death took place so suddenly that an inquest

was held, when the cause was attributed to syncope following chronic bronchitis. The funeral took place on December 26, and was very largely attended. The service was held at Sherwell Church. The Pharmacists' Association was represented by Mr. John D. Turney (President), Mr. Edward Turney (Treasurer), Mr. W. Condy U'Ren, Mr. C. J. Park, Mr. F. A. Goodwin, and Mr. A. D. Breeze.

DARBY.—At Cookham Dean, Maidenhead, on December 22, Mr. Stephen Darby, Ph.C., aged eighty-six. Mr. Darby belonged to a generation of pharmacists of which but few representatives remain. He was apprenticed to the late Mr. Lloyd Bullock, of Hanover Street, Hanover Square, W., and received his scientific education at Giessen University in the early forties. He was not a founder of the Pharmaceutical Society, but was registered in 1852, in which year he joined the Chemical Society. His earliest inclinations had been on the side of scientific chemistry, which is shown by his contributions to literature during the thirty years following 1847, when he communicated to the Chemical Society a paper entitled "Analysis of the Bichromate of Ammonia and Some Double Salts of Chromic Acid." He developed the professional side of his business at 140 Leadenhall Street, London, E.C., and was elected a Fellow of the Institute of Chemistry on its foundation. He had been living in retirement for many years, and previous to his death had had a long illness. Years ago Mr. Darby filled the position of examiner to the Pharmaceutical Society, and in addition had made for himself a reputation as an antiquarian.

HOIT.—At 26A Elm Grove, Southsea, on December 22, Mr. Alfred Henry Hoyt, Ph.C., aged forty-three.

KER.—At Annanbank, Stranraer, on December 24, Mr. Richard Ker, chemist and druggist, aged eighty-one. Mr. Ker was one of the best known pharmacists in the south-west of Scotland. Before starting in business at 38 George Street, Stranraer, in 1863, he had had pharmaceutical experience in Castle Douglas. In Stranraer he was most successful commercially, and he also made a reputation for himself as an apprentice-master, several well-known pharmacists having passed through his hands. His son, Mr. William Ker, was associated with him in business, latterly conducting it.

PAUL.—At Burnbank, Hamilton, on December 19, Mr. Andrew Paul, chemist and druggist, aged eighty-five.

WATERHOUSE. — On Christmas Day, Charles Graham, only child of Mr. F. H. Waterhouse, pharmacist, R.N. Hospital, Haslar, aged five.

WILLS PROVEN.

MR. HUGH RUSSELL BLOTT, Kimbolton, chemist and druggist, who died on December 16, left estate valued at 947*l.*, with net personalty 542*l.*

MR. CHARLES COUTTS, chemist and druggist, 26 Broad Street and 345 Great Western Road, Aberdeen, who died on September 8, left personal estate in the United Kingdom valued at 4,444*l.* Probate of his deed of settlement has been granted to the Rev. Henry Esson Michie, Stonehaven, Mr. Chas. Coutts, chemist and druggist, 345 Great Western Road, Aberdeen, and Mr. J. S. Duthie, Aberdeen.

MR. ARTHUR SANDON GLOVER, 93 Princes Avenue, Kingston-upon-Hull, chemist and druggist, who died on October 8 intestate, left estate of the gross value of 1,863*l.*, with net personalty 581*l.*

MR. ALBERT HARRISON, F.L.S., Grove Road, South Woodford, and Frodham, Cheshire, analytical chemist, who died on August 28, left estate of the gross value of 8,550*l.*, with net personalty 5,448*l.*

MR. LEWIS BUTTLE ROSS, F.C.S., Great Driffield, Yorks, chemist and druggist, who died on December 5, left estate of the gross value of 225*l.*

MR. JOSEPH SMITH, 4 Seafeld Terrace, Copnor Road, Portsmouth, chemist and druggist, who died on November 14, left estate valued at 100*l.*

COLONEL SIR SAMUEL ALEXANDER SADLER, V.D., The Southlands, Preston-on-Tees, Durham, and Middlesbrough, who died on September 29, left estate of the gross value of 20,088*l.* 0*s.* 4*d.*, of which the net personalty has been sworn at 10,173*l.* 5*s.* 11*d.* Subject to an annuity to his widow, he left the residue of his property equally between his six sons.

SCIENTIFIC PROGRESS.

Temperatures under this heading are on the Centigrade scale.

A New Essential Oil.—Alexander ("Berichte," 1911, 2320) has obtained a yield of up to 4 per cent. of essential oil from the plant *Parthenium argentatum*. It is an aromatic oil, levorotatory, and of sp. gr. 0.886. It consists almost entirely of lœvopinene, and a sesquiterpene of sp. gr. 0.935, optical rotation $-21^{\circ} 24'$, and refractive index 1.4960.

A Caucasian Peppermint Oil.—Maisit ("Arch. Pharm.," 1911, 637) has obtained 1.6 to 1.7 per cent. of essential oil from the dried leaves of peppermint oil grown in the Caucasus. The oil was found to contain from 6 to 8 per cent. of combined and 42 to 49 per cent. of free menthol. Oil from two-year-old plants was found to contain a slightly higher amount of menthol, the maximum of total menthol found being 61.17 per cent.

A New Morphine Derivative.—Morphine ($C_{17}H_{19}NO_3$) contains two hydroxyl groups, one of a phenolic character which is easily methylated with the production of codeine. The methylation of the second hydroxyl group, which functions as a secondary alcohol, is difficult, but Pschorr and Dickhauser have now effected this by treating morphine in solution of caustic alkali with dimethyl sulphate. The resulting methyl morphine is isomeric with codeine.

Suprarenin.—A patent has been granted to Flaecher and H. A. Metz Co., of New York, for the preparation of crystalline *o*-dioxypheylethanolmethylamine hydrochloride, the well-known constituent of suprarenin. It is obtained in the crystalline condition when the free base is treated, in alcoholic solution, with the theoretical quantity of gaseous hydrochloric acid dissolved in absolute alcohol. It crystallises out in rhombic prisms melting at 161° . It is claimed that this salt has not hitherto been obtained in the crystalline form.

Thyme and Origanum Oils.—S. S. Pickles has examined the essential oil distilled from the plant *Origanum hirtum*, which has hitherto been believed to be the plant yielding the essential oil rich in carvacrol and poor in thymol. He found the dry plant to yield 3.3 per cent. of oil, sp. gr. 0.944 and optical rotation $+0^{\circ} 24'$. It contained 66 to 67 per cent. of phenols, which were found to consist almost entirely of thymol, and not carvacrol, as has hitherto been believed to be the case. He has also obtained 1.64 per cent. of oil from the Dalmatian white thyme (*Satureia sp.*), which had sp. gr. 0.9548, optical rotation $-1^{\circ} 3'$, and contained 68 to 69 per cent. of phenols, principally carvacrol.

Nigerian Beeswax.—The Imperial Institute have examined samples of beeswax obtained from the Lapai and Zungeru districts of the Niger Province. It is understood that large quantities are obtainable in Northern Nigeria, and in some cases rail transport is already available. Commercial experts valued the samples received at from 6*l.* 15*s.* to 7*l.* 10*s.* per cwt. The results of the chemical examination show that some of the samples were slightly abnormal, having rather high ester-values and somewhat low acid-values, and consequently the "ratio" values are higher than the average recorded for pure beeswax—viz., about 3.7 to 4.2. Three out of the seven samples examined agreed with those recorded for genuine beeswax.

Oil of *Pinus longifolia*.—H. H. Robinson ("Proc. Chem. Soc.," 390, p. 247) obtained from the oil of *Pinus longifolia* by fractional distillation two portions, one portion amounting to about a third, being a much lower boiling-point, and consisting of *l*-pinene. The remaining two-thirds was mainly composed of an oil boiling at 173° , having $D_{20}^{25} 0.867$ and $[\alpha]_D^{25}$ about $+13^{\circ}$. From this, by treatment with dry hydrogen chloride, sylvestrene dihydrochloride was obtained, from which sylvestrene was regenerated. From the mother liquors dipentene was obtained. It is thought very possible that the sylvestrene is not present as such in the original oil, but that a terpene is there contained, which unites with hydrogen chloride to form sylvestrene dihydrochloride, just as pinene yields a hydrochloride from which camphene is obtained when the hydrogen chloride is removed.

Corydalis Alkaloids.—Gadamer and Kuntze, in a paper extending over some forty pages ("Archiv der Pharmazie," 1911, 598), describe the preparation, properties, and derivatives of the alkaloid bulbocapnine, one of the corydalis alkaloids. This body has been described before on several occasions, but always in a very impure state. The alkaloid has the formula $C_{15}H_{19}O_2N$, and is closely related to apomorphine, both being substitution derivatives of the mother-substance $C_{17}H_{19}N$. Bulbocapnine melts at 199° - 200° , and forms numerous well-defined crystalline derivatives. It forms a diacetyl derivative, $C_{17}H_{19}NO_4(CH_3CO)_2$, which, when dried

at 60° - 70° , melts at 156° . The monobenzyl derivative $C_{19}H_{21}NO_2(C_6H_5CO)$ melts at 202° - 203° , and has a specific rotatory power $+92.7^{\circ}$. Numerous other derivatives are described, and the relationships of both bulbocapnine and apomorphine to phenanthrene are fully discussed.



Postal Address:

C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.

Telegraphic Address: "CHEMICUS LONDON."

Telephone No.: BANK 85a (two lines).

INFORMATION WANTED.

We would be obliged if any reader would inform us by post-card or telephone who are the makers or agents of the articles mentioned in the following inquiries received since our last issue:

- 18/44. "Eroform."
- 18/13. Walnut oil: suppliers.
- 19/56. "Novoform": makers.
- 17/66. Sodium peroxide in tablets.
- 19/16. "Icine" ball-room powder.
- 15/45. "Pine Pillow" for sleeplessness.
- 19/531. "Always Ready" food-warmers.
- 19/530. "Sanguinaria Tablets" (made by Carnol, Ltd.).
- 19/53. "Laratol," made by the "Universal Medicine Co., London."

INFORMATION SUPPLIED.

During the past week we have answered inquiries as to where the following articles can be obtained, and in many cases we have given the actual makers. The information will be repeated to any other inquirers who send to this Department a stamped and addressed envelope for the purpose.

- | | |
|-------------------------------------------|-------------------------------------------------|
| "Age" cabinets, 15/30 | "Frizetta" preparations, 16/37 |
| Albumen, dried (animal and edible), 14/51 | Fuller's earth, 18/57 |
| Arsenate of soda, 15/31 | Lead acetate, 19/500 |
| Artificial eyes, 14/58 | Mercury, 19/501 |
| Artificial flowers, perfumed, 17/65 | Mersyren, 15/37 |
| Bentley's old brown Windsor soap, 16/45 | Models of legs, arms, etc., 16/47 |
| Calcium carbide, 19/50 | Montecatini Tamerici Salt, 18/39 |
| Catha edulis, 14/37 | Peruol, 18/700 |
| Chloralamid, 18/45 | Porcelain dye-pots, 15/66 |
| Compressed pulpware utensils, 15/3 | Shellac importers, 13/66 |
| Cork Sprinklers, 19/51 | "Sterilla" liquid soap, 18/44 |
| D. & G.'s toilet specialties, 16/38 | Syphon-filling plant, 17/21 |
| Eupnein, 16/44 | Urocol tablets, 18/7 |
| | Yellow prussiate of potash (Continental), 17/62 |

P.A.T.A. Council.

The election for the 1912 Council of the Proprietary Articles Trade Association took place on Thursday, December 28, the result being that all the retiring members were returned as follows:

Manufacturers.—Allen & Hanburys, Ltd.; Beetham & Son; J. Grossmith, Son & Co.; S. Kutnow & Co., Ltd.; W. Lambert & Co.; Newton, Chambers & Co., Ltd.; Thos. Powell, Ltd.; Scott & Bowne, Ltd.; Sanitas Co., Ltd.; and John C. Umney (Wright, Layman & Umney, Ltd.).

Other candidates were: C. F. Barrett (G. B. Kent & Sons, Ltd.); J. H. Cuff & Sons; Fletcher, Fletcher & Co.; J. Lawson (Daisy, Ltd.); and J. E. Maull (Mellin's Food, Ltd.).

Wholesalers.—Barclay & Sons, Ltd.; G. H. Burroughs; W. Edwards & Son; Evans, Gadd & Co., Ltd.; Hirst, Brooke & Hirst, Ltd.; May, Roberts & Co., Ltd.; J. McCaig & Evans Sons Lescher & Webb, Ltd.; F. Newbery & Sons, Ltd.; Sangers; and James Woolley, Sons & Co., Ltd.

Retailers.—J. G. Atkinson, A. J. Barnes, W. R. Barnes, C. J. G. Bunker, R. Feaver Clarke, H. W. Colley, S. N. Pickard, G. P. Pond, P. F. Rowsell, J. W. Sutherland. The only other retail candidate was Mr. W. S. Glass.

OBSERVATIONS & REFLECTIONS.

By Xrayser II.

Lord Haldane's Argument

with regard to pharmacists and the Advisory Committees was worthy neither of a lawyer nor of a logician; in fact, it was not worthy of any man possessed of common-sense. The fact that our business is not the same as that of the doctors, which he regards as a reason for excluding us from the committees, is the very reason why we ought to be on them. The doctors are specialists in one business, we are specialists in another; with both of these the Insurance Committees will have to deal, but with neither can they deal effectively unless they have at command some expert knowledge of it. The doctors will supply this so far as their own business is concerned, but who will inform the committees with regard to ours? We shall have to supply as well as to mix drugs, and it is merely a business proposition that our employers should know as much as possible about what we supply. How much does the average doctor know about the quality of drugs? I venture, after a considerable experience, to say that he knows precious little. The presence of a practical pharmacist or two on the committee, advising on such matters, would have been invaluable, but the high gods have decreed that we must not be placed "in the same position" with doctors. We belong to the lower branch, and must not be allowed to toss our heads along with them. It matters not that our work, though different, is as necessary as theirs and requires as much expert knowledge; we must be kept in our place as under-dog. This invidious distinction between different kinds of equally necessary work and classes of workmen is as absurd as it is contemptible; and when, as in the present case, it has the practical consequence of preventing efficiency, it makes us despair of public business. In a man of Lord Haldane's general intelligence and wide culture it is amazing; but I suppose the sacred edifice of social order must be upheld at all costs, and how could that be done if trades and professions were placed on the same official footing?

"The Six Cardinal Points"

seem likely to split not only the British Medical Association but the medical profession itself, for I observe that, though in some large cities the revolvers are in the majority, in some parts of the country it is the other way about. Whether a general split would be a calamity of the first magnitude depends upon the point of view. For myself I do not place much reliance on the terrible talk of what is going to happen when the doctors take themselves to the last ditch. At the worst, some of us will have to be content to die a natural death without their aid, or perhaps Nature may get a chance to work out our salvation without the bungling of men who too often pour "drugs of which they know little into bodies of which they know less." Seriously, I am not disturbed by the so-called revolt, which is being engineered by more parties than one "on the make." When I meet medical men privately I do not find one who is not prepared to work under the Act himself or allow others to work under it, and they all admit that the opposition to the Act is simply so much "bluff," so that they may get as good terms as possible. But how their whole attitude in this matter has cheapened and degraded them in the eyes of the community they may find out when it is too late for them to recover their lost dignity.

Doctors' Fees

in Athens in the time of Pericles were, according to Mr. Zimmern ("The Greek Commonwealth"),

much less than seems to have been supposed, and our modern practitioners would have turned up their noses at them. The income of Greek physicians in the classical period has usually been calculated from what Herodotus tells us of Democedes, at one time physician at the Court of Persia, who was so much in request in Greece that different cities appear to have bid against each other for his services. In Ægina he received a yearly salary reckoned as equivalent to 314*l.* of our money, in Athens one of 406*l.*, in Samos one of 422*l.* This was a century before the time of Pericles, and it is to be supposed that salaries would increase with the lapse of time and growth in luxury; but Mr. Zimmern says the case of Democedes was quite exceptional, he being a person of social importance, and that no general conclusion can be based upon it. Doctors, he declares, were classed as craftsmen, along with schoolmasters, sculptors, masons, joiners, and others, and were paid at the standard rate of a drachma (from 4*s.* to 5*s.* in purchasing power) per diem. He adds: "They all earned a decent livelihood, which was all they asked in pay." This continued until the close of the fifth century B.C., when prices began to rise slowly. He makes no distinction between the rate paid to slave doctors and to freemen, though one would suppose from the terms in which Plato speaks of the former ("Laws," 720)—who, for the most part, treated slaves only, and that empirically—that they would have received much less than their masters, though the latter would get a good share of their slaves' earnings. It is true that life was much simpler then than now and money much less thought of, the motive of labour being rather service for the State than private gain, but these figures are a little surprising. Mr. Zimmern contrasts in somewhat caustic terms the Athenian ideal in such respects with our own. What he would have said if his book had appeared after instead of before the meeting at the Queen's Hall at which the doctors declared their determination only to serve the State on terms of their own choosing, one can only guess.

"A Green Yule,"

it is said, "makes a fat churchyard," and the present is surely one of the greenest Yules of living memory. In my own cabbage-patch the grass and weeds are growing and the buds swelling out with sap, as if it were the month of April. Nevertheless, the season does not seem to have been so unhealthy as the proverb would lead us to expect, and the very long list of obituary notices that appears in last week's issue is not a sequence but a coincidence. It brings a touch of sadness to our Christmas festivities to see the portraits of so many whom we have personally known or read about, and whom we shall never see again. Of the half-dozen whose portraits were given in the *C. & D.* last week, there is not one who has not in his or her own way been concerned in

The Making of History.

It is very curious that all the men, save one, made history in other than their native land. Mr. C. E. Dohme, a German, was one of the partners in the great firm, Sharp & Dohme, which has done much for pharmacy in America; Dr. William Muir, a sturdy Glasgow Scot, more than any of his contemporaries made his influence felt on pharmaceutical legislation in New York State; Dr. Muter, also a Glaswegian, is a name honoured by thousands of men who passed through "Muter's" to "The Square," and who will never forget his wise and genial methods; Mr. J. C. C. Payne was an Englishman who devoted his life and talents to Irish pharmacy, of which he was one of the most cultured representatives—all of these men gave to other countries than their own the best they had to give. Mr. Preston lived and died in his native city, and he, too, deserves to be kept in remembrance for his work's sake. Many pharmacists were also interested in "John Strange Winter" on account of business connections, but much more for her literary gifts that produced the delightful series of military stories that used to be so well known. All of them, as well as others not so well known outside their immediate circle, whose names occur in the obituary column, deserve to rest in peace.

Good Winter Lines FOR LUNG & THROAT AFFECTIONS.



"To breathe 'Sanitas' is to breathe health."—GORDON STABLES, C.M., M.D., R.N.

Each.
"SANITAS" Bronchitis Kettles 2/6
and in Solid Brass - - 7/6
"SANITAS" Inhalers - - - 2/6
"SANITAS" Pocket Inhalers 1/-
"SANITAS" Oil 1/- & 4/- Bottles.
"SANITAS" Embrocation,
1/- & 2/6 Bottles.

PAMPHLETS FREE.

The "Sanitas" Co.,
LIMITED,
LONDON, E.

W. POPPELREUTER, MANCHESTER
TERPENELESS, CONCENTRATED
non-clouding ESSENTIAL OILS.
HEINRICH HAENSEL'S
Unequalled Speciality.

S.V.M. METHYLATED SPIRIT
Also RECTIFIED SPIRIT.
S.V.R.
Jas. Burrough Ltd. D.I. Calc Distillery, Hutton Road,
LAMBETH, S.E.

FLETCHERS' FOR TINCTURES, INFUSIONS,
AND SYRUPS.
CONCENTRATED
Sole Proprietors:
FLETCHER, FLETCHER & CO., Ltd
London and Sydney. **LIQUORS**

Editorial Articles.

Past and Present.

It is told of the heaven-sent editor of a great daily newspaper that he created its reputation and his own by what he called the Prophecy Column, which, as the story goes, held the minds of all men, owing to the frequency with which the trend of great national movements was indicated. The man was not gifted above other men with the prevision of the seer, but he had knowledge which enabled him to pierce the veil of history and to pick out from the generally forgotten Past events analogous with some of the Present; then he noted the consequences of the past events, and conjectured that something similar would follow present events. This was the formula for the Prophecy Column. Thus a book and a reputation were made out of the good old-fashioned saying—"History repeats itself."

The longer men live the better they know that one year is very like another, but the less inclined are they to prophesy in regard to anything, for they also know that many things which make history have not happened before. Who in the British drug-trade that gave a thought to their business on the first of January had the slightest idea that the whole trend of their business would before the end of the year be affected fundamentally by a piece of social legislation? The one event, in the present view, which characterises the history of 1911—apart from those kingly pageants concomitant with the Coronation of George the Fifth, and some rumours of war—is the National Insurance Act, and we know now that the progress of this measure aborted many schemes which promised to be events of the year. The measure has taken a grip of the chemist's business, which no Act of Parliament has ever done before, for it takes hold of about a third of his customers, and lays down conditions upon which they will get their physic, a middleman in the shape of Insurance Committees doing the shopping for them. There is no parallel to this in pharmaceutical

G. S. MUMFORD & SONS, FARRINGTON RD. LONDON, E.C.

Finest ARROWROOT	1/ lb.	No. 1 Finest Pure FULLER'S EARTH (Light Colour)	15/ cwt.
BICARB. SODA	15/ cwt.	Best Cleaned LINSEED (TEA)	21/ cwt.
Finest Extra Special		Finest Pure LIQUORICE JUICE	/10 lb.
BORACIC ACID	40/ cwt.	Finest Compound LIQUORICE POWDER	8 & 1/ lb.
POWDER, Finest		PUMICE POWDER	35/ cwt.
No. 1 Finest Pure CRUSHED LINSEED	29/ cwt.	Extra Finest Levigated	
No. 2 Pure CRUSHED LINSEED	28/ cwt.	No. 1 Finest Light Pure PRECIP. CHALK	25/ cwt.
Best Cleaned LINSEED	28/ cwt.	Finest Pure STARCH POWDER	22/ cwt.
EPSOM SALTS, E.S.S.	11/6 cwt.	Finest Pure TOILET	32/ cwt.
Purified, Clean, and Dry	12/6 ..	OATMEAL, SPECIAL	
Ditto, Medium Crystals		Finest Levigated "WHITE EARTH" (Toilet purposes)	18/ cwt.
FLOWERS OF SUL-	13/6 wt.		
PHUR, Finest English	9/6 ..		
Ditto, Foreign			
FULLER'S EARTH	1/ 2 & 1/6		
(In Dredgers)	5/6 11/22/		

Carriage Paid to railway stations within 200 miles of London (or allowance made for distances beyond). Terms, less 2 1/2 per cent. Cash or 1 month net.

EVEN very cheap printing can be good. ¶ Good in design and distinctiveness. ¶ Good in colour. ¶ **THE ARDEN PRESS, LETCHWORTH**, specializes in producing printing for all purposes with just that note of character which makes all the difference. Send for samples **THE ARDEN PRESS LETCHWORTH HERTS**

history; but the comparative equanimity with which the drug-trade takes the actuality of the statute is probably due to the fact that most revolutionary changes which the British Parliament has made on the commercial, industrial, and social lives of the people have generally had the effect of increasing their wealth and improving individual conditions. No class has been killed by legislation unless its objects were obsolete. So chemists or pharmacists will live as long as there are sick to be made well, and pharmacists as business men look after their businesses, getting such assistance in the class endeavours as the Pharmaceutical Society has given in recent legislation crises. If we may venture a prophecy for 1912, the year in which the medicine provisions of the Insurance Act will be reduced to plain dealing at a price, it is that if local intercourse and, arising from it, united action are as well done as in 1911, pharmacists will come into their own under the Act, which does not become law until July, and not until six months thereafter can medical benefit begin. At the present moment there seems to be little else for pharmacists to do than to get together locally, and prepare to use their influence in the appointment of the bodies with which they will have business dealings—that is, the Insurance Committees.

Apart from this upheaval of the drug-business, it may truthfully be said that British pharmacy has prospered during 1911; and this is due largely to the new spirit which is growing in the business. Pharmacy differs from all other shopkeeping trades in respect of the fact that the demand for its staple, medicines, is traditionally said to be limited, and it differs also in that pharmacists and their assistants are qualified by education and examination to render service to the public which is not in the nature of buying goods and selling them at a profit. The service is costly, and being specialised it is supposed to be unprofitable when it handles anything that is not medicinal. It was once a descent for a pharmacist to sell a hair-brush. Other times, other manners. The new spirit is to use economically the specialised service, and to make the most of the business premises, and the time they are open to the public, by adding to the traditional stock articles germane to the business and disposing of these as quickly as possible at a profit. Where departmentalising is possible it is adopted, this being one of the most potent influences in increasing sales, or "merchandising" as the Americans say. The system is well established in the British drug-trade, and it scarcely requires an American invasion to teach this nation of shopkeepers its business, even in the drug-trade, but we are willing to learn—more. New methods are no worse than new years; the latter we do not know until we live through them, the former until we try them. Through changes the world has grown to what it is from the time when "the earth was without form, and void." Looking back upon our pharmaceutical history, we find that at present we have leaders as able as those of any period in the past (allowing for that enchantment which distance lends), while throughout the trade of the country there are many more men of ability than there seem to have been in the past. Moreover, there is an effort of enterprise, a disposition to learn and apply which were not so evident fifty years ago, so far as the journals of that day tell us. There is, too, a greater measure of goodwill between the two main sections of the business. We need go no further than our issue of December 23, when a goodly section of it was devoted to Christmas Greetings from manufacturers and wholesalers to their clients at home and abroad. This week and next week again, some of these are repeated and other seasonal expressions of

fraternity are given to the world through our pages, and we venture to mention those who thus wish to make the year 1912 a prosperous one for all our readers by assistance and co-operation in methods for turning pharmaceutical wares into money:

Aerators, Ltd.
Allen & Hanburys, Ltd.
Stafford Allen & Sons, Ltd.
M. Beetham & Sons.
Berdoe & Fish
A. Boake, Roberts & Co., Ltd.
H. Bronnley & Co., Ltd.
Burge, Warren & Ridgley, Ltd.
Burgoyne, Burbidges & Co.
Burt, Boulton & Haywood, Ltd.
W. B. Cartwright, Ltd.
Daisy, Ltd.
Duncan, Flockhart & Co.
Erasmic Co., Ltd.
Eucryl, Ltd.
Evans Sons Lescher & Webb, Ltd.
Fairchild Bros. & Foster.
J. M. Farina.
T. Ferry & Sons.
Ford, Shapland & Co.
W. Gardner & Sons, Ltd.
Goodall, Backhouse & Co.
C. R. Harker, Stagg & Morgan, Ltd.
J. H. Haywood, Ltd.

T. & W. Henry.
Horlick's Malted Milk Co.
R. Hovenden & Sons, Ltd.
Idris & Co., Ltd.
London College of Chemistry.
J. F. Macfarlan & Co.
S. Maw, Son & Sons.
May, Roberts & Co., Ltd.
F. Newbery & Sons, Ltd.
Odol Chemical Works.
Oldfield, Pattinson & Co.
Oppenheimer, Son & Co., Ltd.
Orridge & Co.
Papier Poudré, Ltd.
Potter & Clarke, Ltd.
Sangers.
F. Schutze & Co., Ltd.
Scott & Bowne, Ltd.
T. & H. Smith, Ltd.
Christy Strong.
Surgical Hosiery Co., Ltd.
T. Swales.
Thermogene Co., Ltd.
T. Tyrer & Co., Ltd.
Vinolia Co., Ltd.
Wright, Layman & Umney, Ltd.

These firms reflect the spirit of co-operation and unity which is the essential of the Present under the new social conditions affecting pharmacy. We all wish that 1912 will be noted in days to come for what follows this spirit when put into business practice—better relations between master and man, better service to the public, bigger turnover, and a good living to everybody. May these desirables figure in 1912, making it

A GOOD NEW YEAR TO ALL.

The Syphon Difficulty.

MANY chemists are faced with a serious difficulty in regard to a heavy debit against them for unreturned syphons. Manufacturers of aerated waters have two systems of dealing with syphons sent out to retailers. In the one system all syphons are charged for when purchased and the empty syphons credited when received back, the monthly statement showing the cash balance against the customer. This account is paid up each month. The other system involves payment for the contents of the syphons only, the syphons being left in a running account. The first method has advantages from several points of view. An extra large amount in the account acts as a stimulus in collecting empty syphons from customers' houses. It is well known that where customers do not pay a deposit on syphons they are not quite in a position to appreciate what it means to the chemist when a syphon is mislaid. It is an excellent plan to set aside definite days of the week for collecting empties; Monday and Friday are convenient days. Most customers appreciate the calls of the chemist's messenger, as it gives them an opportunity, if regular customers, for ordering further supplies of aerated waters. The trouble of having to send to the chemist's is often the sole reason why the "direct-supply" system is taken up by the public. Casual customers for aerated waters must not be neglected, for it is often odd syphons that are placed aside and forgotten. The energies of the chemist's porter or messenger can be stimulated by a small extra payment per dozen empties collected. A little persistence is often needed before a careless servant will trouble to hunt for a syphon

which the record-book shows has not been returned. Empty syphons are often left in the house when a customer leaves the neighbourhood, and whenever there is any doubt on the point as to whether all syphons have been returned a special call should always be made at the house. This is especially needed in London and large cities, where the inhabitants are not so stable as in smaller towns. The "running-account" system of syphon accounts lacks the stimulus supplied in the case of monthly payments. The consequence is that the item of syphons is generally an increasing one—although the business in aerated waters may not increase. Occasionally the number of syphons outstanding is enormously out of proportion to the size of the business, and leads to embarrassment when a business changes hands or it is desired to deal with another manufacturer. The growth of the adverse balance is generally the result of a lack of systematic collection of empties. Those syphons which remain on the record-book and cannot be recovered from a customer should be written off each year, like any other bad debt. It often is surprising to find that, no matter how careful a chemist may be in regard to collecting empties, there is always lost a number of syphons. When accounts are settled in full each month the losses are automatically written off, but with the "running account" the tendency is to neglect this item, and it is also obscured by the lack of system, which unfortunately often results from the system itself. The growing debit balance leads to the suspicion that there is something wrong in the way the manufacturer has kept his books, but it is generally found, when any particular case is investigated, that the fault is not with the manufacturer. The large number of syphons required in running an aerated-water factory is one of the reasons why the syphon capital account of the manufacturers is so enormous. With a prompter collection of empties from customers, chemists could do much to facilitate business when the warm weather causes such inroads into the reserve stock of syphons. The New Year is a time to revise systems which have not proved to work properly, and this matter of collecting empties is one which is worth consideration by many retailers. Where the debit of syphons is not represented by tangible assets the missing number should be ascertained and an effort made to wipe out the amount, spreading it, if necessary, over one or two years.

Methylated Spirit.

IN view of the recent advance in spirit of all kinds announced in our issue of December 16, it may be of interest to recall some of the outstanding features of the market in methylated spirit, which on that occasion was raised in price by 3d. per gal. In some retail quarters this advance on the part of the methylators has given rise to a certain amount of irritation, it being thought that the methylators have the matter quite in their own hands, and that they are making a large margin of profit. It is, however, well known in the best-informed quarters that the price of methylated spirit entirely depends on the prices fixed by the spirit-distillers for raw spirit as well as on the price of wood-naphtha. Both of these products have recently been much advanced in price, and these advances are the immediate cause of the rise in methylated spirit. We may recall the fact that in October 1908 mineralised methylated spirit was advanced by 6d. and industrial by 5d. per gal., this being entirely due to the advance in raw spirit, and the latter rise was due chiefly to the enhanced values of raw materials, such as molasses, from which spirit used for methylating is

largely made. In January 1910 the price of methylated spirit was reduced by 2d. per gal., although there was no reduction in raw materials, the idea being to meet the wishes of a few large buyers. In October last the price of spirit for methylation was advanced ½d. per proof gal. by the distillers, but at that time methylators thought that as so many buyers had contracted for other supplies during the whole of 1911, it would be inadvisable to make any change in the price of the methylated. It may be noted that the liquid-gal. price and the proof-gal. price are not the same; ½d. per proof gal. is equal to 1d. (nearly) per liquid gal. Methylators buy spirit by the proof gal. and sell by the liquid gal., so that an advance of ½d. on the spirit they buy means 1d. on what they sell. When the distillers decided, on December 7, to advance the price of the spirit by 1d. per proof gal., making it 1½d. per proof gal. since October 1, methylators were called together, and the advance of 3d. per gal. was decided upon, this being accounted for as to about 2½d. by the spirit, and the rest for dearer naphtha. We find that in 1908 wood-naphtha stood at about 1s. 11d. per gal., but to-day the price is about 3s. 2d. We are aware that a feeling exists that the spirit industry in this country is bounty-fed, and this view was well expressed in our pages recently by an expert contributor, but fiscal favours alone do not account for the high price of spirit. This is attributable in some measure, as stated, to the prices of raw materials. We pointed out in October last that an advance was not unlikely before the end of the year. For several months past the price of maize rose to a level which caused consumers to anticipate matters. The distillers, as a rule, show themselves considerate to the consumer, knowing full well that numerous changes at short intervals in the cost of their raw material is the last thing desired by manufacturers. Looking at the matter dispassionately, and not overlooking the existence of the spirit "ring," we find that there is no proof that the advances are due to "monopoly."

Viscount Haldane on Pharmacists.

The official report of the proceedings in the House of Lords on December 14, when Viscount Haldane spoke on Lord Weardale's amendments, has now been published, and we append it so that it may be contrasted with the slightly fuller report given in the *C. & D.*, December 23, index folio 914:

"The proposal of my noble friend in his series of amendments to place pharmacists in the same position as doctors and give them representation on the Advisory Committee, is a very far-reaching proposition, and depends upon whether pharmacists are entitled to be placed on the same footing as doctors. We cannot see that it is necessary to put them in this position, and I would point out that the Insurance Commissioners have power, if they think pharmacists should be on the Advisory Committee, to put them on. But after all, their business is not the same as the business of physicians, and I see no reason why they should be placed on the same footing; and if this amendment was accepted there might be other trouble of a far more serious character with regard to some of the later clauses."

This shows signs of revision, the last clause of the third sentence being new. It is the only rational ground of expediency advanced for the Government's refusal of the amendments.

Transfers of Excise Licences.

The question of what the position is of a person who succeeds to a business for which an Excise licence is held is one with which our readers are often confronted. This is particularly so with the licences to sell patent medicines, to retail methylated spirits, and to sell by wholesale or retail spirits or wine. In the case of all these licences, if the successor comes into the business during the

currency of the licence it may be transferred to him, and is then available for the remainder of the term for which it has to run. The licence must be endorsed by the licence-holder with a signed request to the following effect:

"I request a transfer of the within licence from my name to —" (the name of his successor).

The successor can then have the licence transferred by presenting it to the local officer of Customs and Excise for the requisite endorsement and registration of the transfer. Where the licence-holder has died, the request for the transfer has to be made and signed by his executor or other legal representative. When a person holding one of the licences mentioned ceases to carry on the business for which he is licensed at one place and removes to another, he may on application and request in the same way have his licence removed from the old premises to those of which he becomes the occupant. In the case of licences to retail spirits or wine no transfer can take place unless the Justices' transfer certificate is first obtained. In some cases of wholesale spirits or wine licences held in conjunction with the retail licence this is also required (see, as to this, *C. & D. Diary* for 1912, pp. 453, 454). In these cases also, and in the case of a retailer of methylated spirits, an entry has to be made of the licensed premises with the local officer of Customs and Excise before a transfer is allowed.

The B.P. and Chloroform.

The Section of Anæsthetics of the Royal Society of Medicine recently discussed a letter from Dr. Nestor Tirard, medical editor of the *British Pharmacopœia*, in which an expression of opinion was asked on the propriety of making chloroform derived from methylated spirit official in the *Pharmacopœia*. After considerable discussion it was decided "(a) that methyl (*sic*) chloroform is sufficiently important to be included in the *British Pharmacopœia*; and (b) that acetone chloroform should also be recommended to be included." No one will be surprised at this decision, seeing that chloroform, derived from what ever source, is a definite chemical compound, which modern methods of manufacture produce in a very high state of chemical purity. In the past "slapdash" methods of anæsthesia have undoubtedly led to the purity of chloroform being questioned, whereas in reality the vapour administered probably contained too large a percentage of the anæsthetic. Of late years the study of anæsthetic agents has progressed wonderfully, and now that the use of admixtures of chloroform with air in known proportions is being extended, so may we expect the use of chloroform made from methylated spirit to progress. In this connection we quote a despatch from New York on December 26 to "The Standard":

"Dr. Gwathmay, an anæsthetist at the Skin and Cancer Hospital, has discovered a new method of administering chloroform and ether, reducing the risk of death to *nil*, and eliminating the after-nausea in 90 per cent. of the cases. The method, which has recently been used in 6,000 cases in a number of hospitals throughout the country, consists in passing the anæsthetic through water warmed slightly above blood-heat before administering it to the patient. This is accomplished by a simple apparatus operated by a foot pump. The water removes certain impurities, mainly aldehyde, which tend to cause nausea, while the anæsthetic, being of the temperature of the body when inhaled, does not cause any shock to the system as produced by the old method of breathing cold ether and chloroform."

It is curious that when improvements in chloroform administration are brought forward they are not uncommonly attributed to removal of "impurities." Here we have a case in point; but commercial British chloroform is a remarkably pure product, free from aldehyde, and any that Dr. Gwathmay has found is probably

formed by the small proportion of pure alcohol added to chloroform as a preservative, or present in the ether, oxidation taking place naturally when the anæsthetic is passed in the gaseous state through warm water, which would retain the aldehyde.

Almanacks and Diaries.

MESSRS. BECK & INCHBOLD, LTD., printers, Leeds, send out a wall calendar with daily pull-offs. The detachable leaves are each $5\frac{3}{8}$ in. by $4\frac{1}{2}$ in., and as the date figure nearly fills the space, it can be seen from afar.

MR. J. D. PETRIE, The Pharmacy, Blairgowrie, issues a calendar 9 in. by $5\frac{3}{8}$ in., which is attractive by reason of the picture in the upper part. It is entitled "The Music Lover," and shows a scarlet-robed cardinal practising on the flute. The calendar portion is on leaves, each containing a month's dates.

MESSRS. MORGAN & LAWLEY, Vicar Street, Kidderminster, which is owned by Mr. Maurice Smith, Ph.C., F.S.M.C., issue "Smith's Annual," in which the optical and dispensing sides of the business are prominently kept before the reader. There is a fine photographic reproduction of the shop-front as a frontispiece. The "Annual" contains advertisements of other local traders.

MR. H. STACEY HALL, chemist and druggist, Medlock Street, Hulme, Manchester, sends us a copy of his pretty calendar in the form of a letter-case or "tidy" for the wall. It measures $10\frac{1}{4}$ in. by 9 in. On the front of the pocket, monthly tear-offs are fixed, and the upper part is taken up with a quiet toned colour picture, depicting a scene in Scotland, entitled "Off for the Day."

THE BRITISH DRUG HOUSES LTD., Graham Street, City Road, London, N., issue an engagement calendar for desk use. The publication measures 10 in. by 6 in., and is provided with a very artistic cover, the *motif* being the awards obtained by the company at the Turin Exhibition. The calendar is in monthly sheets, with spaces for inscribing important engagements. On each sheet a small space is devoted to reminding the user of seasonable goods which must be bought or shown during the month. This is a useful feature which many chemists are bound to appreciate.

Cancer and Its Cure.

PROFESSOR VON WASSERMANN lectured before the Berlin Medical Society on December 20 on "Chemo-therapeutical Experiments upon Animals Affected with Tumours." The lecturer, who was supported by Dr. von Hausemann, gave the striking results of experiments in which cancerous mice were injected with a selenium compound, described as containing selenium and kosin. The injection for an average mouse is 2.5 milligrams of the preparation each day, and for two days no difference is noted. On the third injection the tumour becomes soft, and on the fourth day smaller, while it is practically empty after the fifth or sixth injection, and it disappears about the tenth day. Many mice died from blood-poisoning due to the spreading of the contents of the tumour, but where the mouse has lived no new cancerous growth has appeared after many months. Both speakers were careful to state that the treatment will not necessarily apply to the cure of cancerous growths in human subjects. No statement is given as to the proportions of the ingredients in the remedy. The use of selenium in medicine has up to the present been practically confined to homœopathy, where the trituate (1x to 3) of the metal is prescribed. Kosin is derived from kousso, the male inflorescence of *Hagenia (Brayera) anthelmintica*, Willd., being probably formed by the decomposition of kosotoxin. It is a mixture of crystalline and amorphous compounds, the crystalline portion (kosin cryst.) being official in the Hungarian *Pharmacopœia*, the formulas $C_{20}H_{30}O$ and $C_{22}H_{30}O$, being assigned to it. It forms yellowish needles soluble in alcohol, ether, and chloroform. The dose is given in Merck's "Index" as from 1.5 to 2 grams. No doubt modifications of the new remedy will be tried in cases of human cancer, and pharmacists may be called upon to prepare them.

TRADE NOTES.

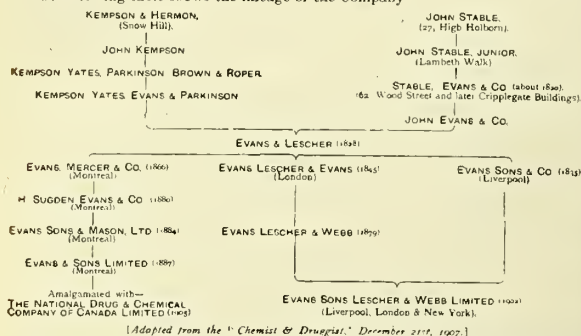
WRIGHT'S COAL-TAR SOAP window-display competition (1911) closes this week, so that competitors in the United Kingdom must post their matter to Messrs. Wright, Layman & Umney, Ltd., Southwark, London, S.E., on Friday, December 29, so as to ensure delivery on December 30. Another competition is being arranged for 1912.

NEW OPTICAL COMPANY.—The Elliott Optical Co., 104 and 105 Great Saffron Hill, London, E.C., which is commencing business on January 1, has secured the services of Mr. Guy E. Druiff, the author of "Refraction," which is known to many of our readers. The company has been organising the various departments during the past few months, and the prescription department is to be in charge of Mr. Walter Green, F.S.M.C.

"ROSATOGEN," the artificial rose odour invented by Mr. Peter M. Short, B.Sc., got 8 in. of the "Daily Chronicle's" space on Boxing Day. In the course of the article it is stated that Mr. Short "has for several years past been carrying out experiments with liquid air. One of these experiments was to produce a candle from paraffin by freezing it. . . . Mr. Short found in his experiments that certain free agents remained floating at the top. These he proceeded to investigate, and after four years of constant experiments he produced this synthetic product, which imitates otto of roses."

MESSRS. EVANS SONS LESCHER & WEBB, LTD., London and Liverpool, issued last week to their customers "With the Compliments of the Season" a brief history of the company, compiled on the occasion of the further extension of premises in 1911. As a company this leading British business is completing its first decade, but the business was really founded by John Evans in 1820, and the brief history records the growth of the business and changes in *personnel* from that time, the whole being summed up in the following "tree," which forms the last page of the booklet:

The following table shows the lineage of the Company—



(Adapted from the "Chemist & Druggist," December 21st, 1907.)

The history of this business has often been written, but never with such intimate knowledge or in more elegant style than by "E. A. W.," author of the "Brief History."

"THE PILL BOOK," issued by The British Drug Houses Ltd., 22-30 Graham Street, City Road, London, N., has reached a second edition extending to seventy-eight pages. It has been thoroughly revised and enlarged, and contains formulæ or strengths of 1,938 distinct kinds of pills, besides lists of capsules, lozenges, pastilles, gelatin lamels for ophthalmic use, medicated bougies, semipules, glycerin suppositories, medicated pessaries and suppositories, compressed tablets and ampullæ, besides horse-balls, dog-pills, and other kinds of veterinary medicines within the scope of the catalogue. In the pill-list the letter "B" prefixed to the number denotes the pills formerly made by Messrs. Barron Harveys & Co. (including the "sweet" pearl-coated pills prepared according to the Letters Patent of 1887 for the application of saccharin in the manufacture of varieties of coated pills and capsules); the letter "D" denotes those of Messrs. Davy, Hill & Co., "H" those of Messrs. Hearson, Squire & Francis, and "K" those of Messrs. Hodgkinsons, Clarke & Ward, the four constituent firms embraced by The British Drug Houses Ltd. Copies of the catalogue may be obtained on application to the company at the above address.

PERSONALITIES.

Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.

MR. HAWORTH ROBERTS, Ph.C., Market Street, Hyde, Cheshire, has been elected Chairman of the Executive Committee of the local Tradesmen's Association.

MR. H. GILBERT PEAKE, son of Mr. Arthur Peake, chemist and dentist, Earlestown, has obtained degrees in medicine, surgery, and midwifery at the Manchester University.

On Christmas Day, at 114 Highbury New Park, N., Mr. T. C. Jones, chemist and druggist, formerly of South Street, Manchester Square, W., and Mrs. Jones, celebrated their golden wedding.

MR. R. G. LAYBOURN, chemist and druggist, 39 High Street, Margate, has been presented with a smoker's outfit in recognition of his services for five years as Secretary of the Royal Arch Chapter, No. 441, Ancient Order of Druids.

MR. A. V. APPLETON, who has for many years past occupied the position of general manager in the office of Dakin Bros., Ltd., and has now completed nearly twenty-five years in their service, has been appointed a director of the company.

WE learn that Mr. Benjamin Deaville is now the sole proprietor of the business of Messrs. Newball & Mason, manufacturing chemists, Sherwood Rise, Nottingham. Mr. Deaville was apprenticed to the late Mr. Thomas Mason, and during his apprenticeship showed such aptitude in mechanical matters connected with the manu-



MR. B. DEAVILLE.

facturing side of the business that when his apprenticeship was completed Mr. Mason willingly agreed that he should thenceforth devote himself to the manufacturing department, and it may fairly be said that the great developments of the business during the past twenty-five years have been due to Mr. Deaville's keen perception of the possibilities of Mason's Extracts. He had long been a partner with Mr. Mason, and for ten years before the latter's death the management of the business was entirely in Mr. Deaville's hands. Mr. Mason once remarked to us of his partner, "We work together like father and son"—a remark which is now fitly crowned by Mr. Deaville's sole ownership.

PHARMACEUTICAL SOCIETY.

NORTH BRITISH BRANCH.

THE second of the scientific meetings for the session was held at 36 York Place, Edinburgh, on Wednesday evening, December 20, Mr. J. P. Gilmour, Chairman of the Executive, presiding. The first paper was on

UNUSUAL SOURCES OF COPPER.

This was read by Mr. SCOTT on behalf of Mr. J. Wilson Dougal, B.Sc., who in a former paper pointed out the presence of minute quantities of copper in various forms of plant and animal life and as an essential functional element in some organisms. In the present paper he dealt with the existence of copper in sewage and its possible action on the bacterial purification of sewage. By biological processes only is true purification possible, but as at present carried out the manurial value of the sewage is lost, which the author maintained should not be. After describing various technical details connected with sewage, he called attention to the composition of the soft sludge removed from the septic tank, which showed 65 per cent. of moisture, 1.98 per cent. of fatty matter (m.p. 20° C.), 18.18 per cent. of organic matter including hair, fibre, etc., and 14.84 per cent. of grit, clay, etc., after incineration. The water extract of dried sludge gave 3 per cent. of ash, mainly sulphate of lime. The ash obtained by incineration from a sample of sludge showed 0.11 per cent. of sulphides of lead and copper. Some metals are normal in sewage water, but copper, lead, chromium, and zinc are abnormal. The presence of copper may be accounted for by the action of the excess alkali in soap upon brass and copper fittings on sinks, baths, etc. Dealing with the influence of small quantities of sterilising agents on micro-organisms, the author said copper sulphate has been used to remove obnoxious algae from reservoirs. Some authorities state that metallic copper gives off copper in a colloidal state which sterilises bacteria in water, and in India copper vessels are used for domestic purposes with the knowledge of this virtue. In one investigation with a bright copper vessel, tap-water containing 1,020 organisms per c.c. had that number reduced to eight after twenty-four hours. It is important to note that the sterilising power of copper increases with the ionic copper value; copper chloride has 1½ times greater effect than copper sulphate. Bright iron and zinc surfaces also have great germicidal power, but as these metals are quickly oxidised, the effect only lasts for a short time. Ferrous sulphate is a powerful germicide, though not so effective as copper salts; 0.003 part of zinc carbonate per 100 render drinking-water poisonous, while one-tenth of that proportion of lead salt is similarly poisonous. Lead, however, is a cumulative poison, which is not the case with zinc salts. Alum and lime are also sterilising agents. Among mineral sterilising agents or bacterial poisons we have a very powerful one in bodies which give available chlorine, an agent which had been used with some effect in sterilising. Five parts per 100,000 sterilise a good effluent, while 5 parts in 1,000,000 destroy bacilli coli. In certain circumstances the mineral acids (HCl and H₂SO₄) have powerful poisonous effects in dilute solution on bacterial life; 0.08 per cent. acid in solution destroys typhoid bacteria in fifteen minutes. Sodium bisulphate is also useful in this way. It might not be unreasonable to say that the virtues of some pharmaceutical preparations are due to the effect of acid contents in helping to destroy excessive bacteria in the human system.

In the discussion Dr. George Coull, Mr. William Duncan, Mr. G. F. Morson, Mr. Donald McEwan, and the Chairman took part. Mr. DUNCAN recalled experiments by Mr. J. R. Hill on the green colour of certain vegetable and pharmaceutical products, found to be due to copper. He mentioned that though copper is very fatal to some bacteria, others seem to thrive with a certain amount of it. It has been found that in using copper sulphate for killing vermin on fruit trees that the grass below these trees seem to be of a better quality where it has been drenched with copper salts. He mentioned having in his possession a sheep's head, round the teeth of which there was a deposit of copper,

which he attributed to the sheep pasturing on grass in which there was copper in excessive quantity. Mr. MEBSON, speaking of the latter statement, said it is a common practice among farmers to use copper-sulphate spray in cultivated fields, which is fatal to charlock, but the cereal crops are better for it.—Mr. SCOTT, replying to questions, said it is not likely that sludge would be of any manurial value whatever. The discussion closed with a high compliment to the author by the Chairman.

SOME OBSERVATIONS ON A CREOSOTE AND PHENOL PILL was the title of the next paper, by Mr. PETER BOA. The following prescription has occurred in practice fairly often of late :

Phenol.	...	...	...	gr. j.
Creosoti	...	...	...	mij.
Pil. excipient.	q.s.	ut fiat	pilula.	

Mitte xij. tales.

Mr. BOA explained that the phenol and creosote were heated with 2 grains of white wax in a squat pill-tube, corked, until the wax had melted, and the whole formed a clear liquid. After it had solidified, the mass was transferred to a mortar and gently mixed with sufficient powdered liquorice-root to form a workable pill-mass. The resulting pill weighed about 7 grains. The patient was told that if the pill was too large to swallow comfortably it could be divided into two and so taken. The pills were found to be serviceable for the ailment for which they were prescribed. Mr. BOA gave the results of an attempt to reduce the size of the pill. Animal soap is the favourite excipient for creosote. *Pilula creosoti* B.P.C. contains :

Creosote	...	...	...	1 minim
Animal soap	...	...	...	½ grain
Powdered liquorice-root	...	...	...	2½ grains

This gives a 4-grain pill for 1 minim of creosote; 8 grains for 2 minims. He also quoted the recommendations of the late Mr. Martindale and Mr. E. W. Lucas, and said that both these methods with his prescription necessitate a pill even larger than 7 grains. When the phenol and creosote are heated with the soap the mixture darkens in colour to such a degree that one might confidently assume some reaction to have taken place, and the question arose : To what extent are active constituents chemically altered? There is no suggestion of any change when wax alone is used with the phenol and creosote, and this method was retained for use in practice. Experiment showed that by a slight increase in the wax a considerable decrease in the quantity of inert powder necessary could be effected. Finally, he decided that 2½ grains of white wax and 1 grain of powdered liquorice-root appear to be a suitable excipient to form 1 grain of phenol and 2 minims of creosote into a pill weighing about 6½ grains. Pharmaceutically the mass is homogeneous, plastic, and easily worked; medicinally the pill is firm in the stomach, and it presents the essential constituents unchanged and in full activity. The phenol, creosote, and wax should be incorporated with the powder gently and quickly. Energetic or prolonged beating introduces air, which makes the mass brittle.

Mr. DUNCAN said this is the only feasible way of making a satisfactory pill with such ingredients. He had found it a workable plan, but it is desirable that the pill should be divided into two. Mr. BOA, replying to a remark by Mr. DUNCAN regarding the use of cassia to roll the pills in, said it masks the odour of the creosote more than French chalk does, and possibly in swallowing the pill the cassia removes the objectionable flavour of creosote. The CHAIRMAN remarked that papers on such subjects are most acceptable.

Mr. J. W. PLENDERLEITH next read a paper on

A CRYSTALLINE DEPOSIT IN INFUSION OF SENNA.

The following prescription was dispensed :

Inf. sennæ B.P.	...	...	...	ʒviii.
Spt. chloroformi	...	...	...	q.s.

Sig.: One or two ounces at bedtime.

The spirit of chloroform was intended as a preservative, and ʒiiss. was added. On a larger quantity of the mixture, which lasted a longer time, being supplied there was a complaint that after a few days an unsightly precipitate formed, suggesting something wrong in the dispensing. On going thoroughly into the matter, the author found that the precipitate was due to the senna, and after

C

experimenting with seven kinds he found that all gave it. The deposit in the first sample consisted of two different kinds of crystals, one in colourless acicular prisms, and the other small short ill-defined yellow crystals. The infusions were made under like conditions of time and temperature, filtered hot into 3-oz. well-filled bottles, and preserved with chloroform to guard against oxidation and bacterial growth. A slight deposit was apparent at the end of one day, and at the end of a week the following results were observed:

Sample	Ash p.c.	Variety	Deposit	Clear Crystals about	Yellow Crystals about
A	9.6	Alexandrian	Abundant	90 p.c.	10 p.c.
B	11.24				
C	8.4	Indian	Very slight	Absent	100 "
D	—	"	Moderate	50 p.c.	50 "
E	—	"	Abundant	75 "	25 "
F	—	"	Slight	Absent	100 "
G	—	"	Very slight	"	100 "
H	—	Pods	Slight	"	100 "
I	—	"	Very slight	"	100 "
J	—	Alexandrian (exhausted)	Slight	"	100 "

The author referred to the statements regarding the infusion in the U.S. Dispensatory, ed. 19, p. 1113, and Tschirch and Hiepe ("Y.B.P.," 1901, p. 114), and said the former was probably the same deposit as found in these experiments, and the latter was almost certainly the yellow crystals found in these experiments. The yellow crystalline substance was completely removed by washing with water followed by alcohol and ether. The residue was practically pure white and was found to be calcium tartrate, as to the properties of which he spoke at some length, indicating that Alexandrian leaves contain about 2.28 per cent. of this tartrate, and the hot infusion is almost a saturated solution of the salt, which it deposits as it cools, but deposition is not complete until about thirteen days elapse.

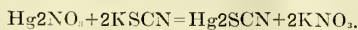
Discussing the paper, Mr. Merson and Mr. Hill both referred to the amount of work involved in an investigation of this kind, which in this case Mr. Hill said had been of an exceedingly careful and patient character. It was a most remarkable fact in such a common thing as an infusion of senna no one had apparently stumbled on this point. Mr. Cowie said he had examined four official concentrated preparations of senna in his possession which were at least twenty years old. There was in all of them a precipitate which was found to contain considerable quantities of calcium tartrate. The Chairman also complimented the author on the logical presentation of facts and scientific spirit which characterised the paper.

Mr. W. B. COWIE, Ph.C., F.C.S., then read a paper on VOLUMETRIC DETERMINATION OF MERCURY IN MERCURIAL PREPARATIONS.

In this the author dealt chiefly with the method adopted by Mr. Philip H. Crewe for ung. hydrarg. ("Y.B.P.," 1903, p. 473, and *C. & D.*, 1903, II., 479), which, he said, works well, is easily applied, and gives concordant results, but requires time for carrying out the gravimetric operation in the last stage. The first part of this method combined with a modification of Volhard's volumetric thiocyanate yields a quick and accurate method for determining mercury in the official mercurial preparations. The method was described as follows:

About 10 grams of the preparation is weighed in a suitable wide-mouthed flask, mixed with 200 c.c. N/2KOH (alcoholic) and boiled under a reflux condenser until the mercury is precipitated (using a reducer if necessary, such as formaldehyde). The soap solution is decanted and the precipitated mercury washed with water, which is run through asbestos wool to prevent loss of mercury. The wool is returned to the flask containing the mercury, which is now dissolved in 5 c.c. HNO₃ (1.42), the solution is made up to 100 c.c., 20 c.c. is placed in a white basin, mixed with a few c.c. of a ferric solution and KSCN solution of known concentration run in until the red colour appears.

The reaction takes place according to the following equation:



The end-reaction is very sharp in presence of excess of HNO₃ or NH₄NO₃.

The most convenient concentration of the KSCN solution is 1 c.c.=0.01 gram of mercury.

Some official preparations can be dissolved in nitric acid and titrated without previous manipulation. These are hydrargyrum cum creta and pilula hydrargyri. Standards of these gave very concordant results. Unguenta made with a saponifiable base are boiled up with alcoholic potash until the mercury is deposited as oxide or metal, using a reducer if necessary. After washing, the precipitate is dissolved in 5 c.c. of nitric acid, and titrated with potassium sulphocyanide solution. Unguenta containing paraffin base are first digested in benzin, the oxide is collected in asbestos-wool and washed with benzin until free from basis, then dissolved in nitric acid and titrating an aliquot part of the solution.

Specimens of ung. hydrargyri B.P., ung. hydrargyri co., ung. hydrargyri iodid. rub., ung. hydrargyri nitratis, ung. hydrargyri oleatis, ung. hydrargyri oxid. rub., ung. hydrargyri oxid. flav., and ung. hydrargyri subchlorid. were made and the mercury in them determined. All gave good results except that those in which the mercury exists as a compound were on an average 0.5 per cent. too low.

Dr. Coull and Mr. Merson asked questions, and the Chairman spoke of the utility of a simpler method, although it might be similar to that generally used. He was rather pleased to find that Mr. Cowie, contrary to Mr. Boa, did not propose to banish the nitrate of mercury ointment from the Pharmacopœia. Mr. Cowie, in the course of a lengthy reply, stated that he fixed the percentage of mercury by simply calculating what the product should yield. It was not likely that any of the mercury would be evolved with the oxides of nitrogen. In preparing standard samples of the ointment he did not follow the B.P. method, which gave erratic results. He heated the ingredients to 90° C. on a water-bath, and in no case did the temperature go beyond a maximum of 100° C., and a very fine ointment was obtained. He could not say definitely whether the low result was uniform or not.

NOTE ON CINNAMON-WATER.

A communication on this subject by Mr. J. TAIT, Ph.C., was read, in which he described an investigation of a sample of cinnamon-water which two years ago had developed a fungus and an odour closely resembling that of benzene. The water had been distilled from the bark of Ceylon cinnamon, but the sample in which the fungus developed had been considerably diluted with tap-water. The original stock did not appear to have developed any fungus, but had a distinct benzene odour. It contained a deposit of shining tubular crystals, which proved to be cinnamic acid. The water was distinctly acid to litmus paper. The benzene odour was dissipated by heating. After referring to the literature on the subject, the author came to the conclusion that the oxidation of cinnamic aldehyde accounts for the change, especially as a coumarin odour was observed after the benzene odour had been dissipated. The use of tap-water to make the diluted water explained the growth of fungus, which was found to be a species of mucedo. The author stated that there is dissatisfaction with B.P. cinnamon-water, and suggested that it should be made from the oil, as such water is stable.

Dr. Coull and Mr. W. Duncan, speaking in the discussion, recalled personal experiences of benzene odour in this water and in syrup of tolu. so did Mr. Peter Boa, who, however, was not prepared to agree with the suggestion to make cinnamon-water from the oil, because it does not retain the flavour for any length of time, and it has not the full flavour that the water distilled from the bark has. Just in the same way dill-water made from the oil does not have the flavour and smell of that distilled from the fruit. Mr. C. F. Henry said his experience of cinnamon-water from the oil is that it is as good as that obtained from bark, provided the proper proportion of oil is used. Mr. Cowie agreed with Mr. Boa that the water distilled from bark is far superior to water made in any extemporaneous way. It contained esters which gave it a flavour that is absent from water made with essential oil. Mr. Forret had no difficulty in supporting the view that water made from essential oil should be adopted. He made it by dissolving the oil in a little spirit, adding to the water and filtering through kieselguhr. Mr. Hill said his experience was that cinnamon-water prepared with oil is not unstable and does not lose its flavour. Water distilled from the bark possesses the distinct bouquet which Mr. Boa thought of so much importance, but it was by general consent unstable and unsatisfactory in use. The Chairman supported the use of

essential oil, and said he found that to prepare a concentrated cinnamon-water by dissolving true cinnamon oil in 50 per cent. alcohol, filtering through kaolin, and making up to a definite volume with 90 per cent. alcohol works well. One part of this concentrated solution to 40 parts of water gives a cinnamon-water equivalent to the official standard. Mr. Tait, in his reply, assured Mr. Cowie that the sample of cinnamon-water he used was distilled by the official process from genuine Ceylon cinnamon-bark.

The authors of the papers received a hearty vote of thanks.

CHEMICAL SOCIETY.

OWING to pressure upon space the following notes on the meeting reported in our issue of December 15 (index folio 881) were held over. Messrs. Reynolds and Taylor, at the end of their paper on the decomposition of nitric acid by light, said that anhydrous acid decomposes slowly in the dark after an induction period of one month, until the equilibrium is reached, which is attained when anhydrous acid exposed to light is afterwards kept in the dark. This slow decomposition of anhydrous acid in the dark would account for explosions which have occurred when nitric acid has been stored for considerable periods.

Messrs. J. N. Pring and D. M. Fairlie also read a paper on

THE METHANE EQUILIBRIUM.

This research shows that below $1,600^{\circ}$ the synthesis and decomposition of methane in the system of carbon and hydrogen is slow, but is accelerated by a catalyst. Above $1,600^{\circ}$ the formation of ethylene produces a disturbing influence. The velocity of methane formation increases rapidly with the pressure. Amorphous carbon gave false or metastable values diverging from that of graphite at higher temperatures owing to its transference into that form of carbon. The principal point of interest was the statement by the authors that probably the most economical method of manufacturing methane would be by subjecting finely divided carbon to the action of hydrogen at 200 atmospheres and a temperature of $1,200^{\circ}$, when rapid union would ensue, possibly with explosive violence.

The last two papers were on DERIVATIVES OF *o*-XYLENE. Part I., by Dr. A. W. Crossley and Miss C. H. Wren, resulted in fixing the melting-point of 3-nitro-*o*-xylene prepared from 3 : 4 dinitro-*o*-xylene at 15° , the product obtained in another research melting at $7^{\circ}9'$ not being quite pure, but evidently containing 6 per cent. of the isomeric 4-nitro derivative. The preparation of 3 : 6-dinitro-*o*-xylene was described, 1,200 grams of *o*-xylene being nitrated and yielding after over 1,000 crystallisations 3 grams of a dinitro xylene melting sharply at 90° . On mixing with any of the three isomeric di-nitro xylenes with different melting-point values the melting-point is lowered, so that it must be the remaining 3 : 6 compound. Part II., by Dr. Crossley and Mr. G. F. Morrell, arose out of an attempt to find a method of obtaining larger quantities of 3 : 6 dinitro-*o*-xylene than the foregoing. Of the six dinitro-amino *o*-xylenes five were obtained, but the authors failed to get the sixth, which was the one required.

THERE was a small attendance at the meeting of the Society held at Burlington House, London, W., on December 17, with the President, Professor P. F. Frankland, F.R.S., in the chair.

The Chairman announced that the Longstaff medal had been awarded to Dr. H. Brereton Baker, of Oxford, the actual presentation of which would be made at the annual meeting on May 28. The first two papers were continuations of researches on

THE DEPENDENCE OF ROTATORY POWER ON CHEMICAL CONSTITUTION.

Dr. R. H. Pickard and Mr. G. Kenyon had prepared six of a series of secondary alcohols containing the isopropyl group of the general formula $R.CH.OH.CH(CH_3)_2$. These had a constant molecular rotatory power at the boiling-point, which was not the case in the "methyl" series

described in the previous series. Drs. McKenzie and Lowry and the President discussed the paper, the last-named pointing out that the maximum molecular rotatory power was attained when the radical possessed four or five carbon atoms. This was probably due to the open nature of the chain, as in the higher compounds the carbon atoms were returned on themselves forming a spiral or series of spirals. In the second paper Dr. Pickard and Mr. W. O. Littlebury described their investigations in regard to clearing up the relations between the menthones and menthols described in literature. They had availed themselves of Brunel's method of reducing thymol with pure hydrogen in the presence of finely divided nickel at 160° - 180° . The resultant mixture, termed thymo-menthol by Brunel, contained several compounds, both ketones and alcohols. The alcohols were separated as hydrogen phthalates, and these salts fractionally precipitated as their zinc, calcium, and magnesium salts, the three compounds isolated yielding menthol, *neo*-menthol, and methyl-cyclohexanone, the last by the splitting off of the isopropyl radical. From the remaining mixture of ketones, menthone and probably *iso*-menthone were isolated as semicarbazones. The inactive menthol was resolved, using the cinchonine succinates. The two hands have the same melting-point (31°), and equal, but opposite, rotatory powers. They seem to differ in odour. The inactive *neo*-menthol was also resolved into its active components, also with the same melting-points (51°), and with equal and opposite rotations.

The active menthols were also obtained by reducing inactive menthone, but the proportions of menthol to *neo*-menthol varied according to the reducing agent, with sodium in ether the proportion being five of menthol to one of *neo*-menthol. The *l*-menthol obtained contained about 5 per cent. of impurity, and was purified by fractional crystallisation of the benzoate. On oxidation *l*-menthol and *d*-*neo*-menthol yield *l*-menthone, while *d*-menthol and *l*-*neo*-menthol give *d*-menthone. After obtaining the above results, Dr. Pickard said they were naturally anxious to find out whether *neo*-menthol existed in nature. They were indebted to Messrs. Schimmel & Co. for residues obtained in working up large quantities of Japanese peppermint oil, and they had obtained therefrom about 50 grams of *d*-*neo*-menthone. This possibly showed that ketone was first formed in the plant, and was afterwards reduced to the alcohol.

ABSORPTION SPECTRUM OF QUININE.

The next paper, by Dr. J. J. Dobbie and Dr. J. J. Fox, was also a development of a former research. It had been shown that quinoline and cinchonine gave practically identical absorption spectra, although the mass of the molecule of the latter was twice as great as the former. It was now shown that the 6-hydroxy and 6-methoxy derivatives of these compounds (6-hydroxy-quinoline and cupreine, and 6-methoxy-quinoline and quinine) behaved similarly. The authors conclude that the physiological action of quinine is dependent upon both the quinoline and the reduced parts of the molecule, and cannot be ascribed to either. The last paper was by Dr. G. T. Morgan and Miss F. M. G. Micklethwaite, on "Amino-derivatives of Aryl-sulphonanilides and Aryl-sulphon- β -naphthalides." This was a development of a former research, and consisted of finding methods for transforming these compounds into azo-bodies, especially azo-dyes.

COLLEGE NOTES.

BATH COLLEGE OF PHARMACY.—The supper and smoking-concert held under the presidency of the Principal (Mr. D. J. Williams) at Fisher's Restaurant, Bath, on December 14, proved to be most enjoyable. The toast of "The College and Chair" was proposed by Mr. Eveleigh, seconded by Mr. Mitchell, and supported by Mr. Mason. The last-named presented Mr. Williams with a case of pipes, on behalf of the present students at the College. This toast was accorded musical honours. Mr. Williams briefly replied, and in response to calls of "Speech!" Mr. P. J. Thompson also addressed the gathering. A splendid musical programme was gone through besides. Messrs. D. J. Williams, Walwin, Ogilvie, and Wood aiding the professional artistes.

WINTER SESSION.

Society of Chemical Industry.

A MEETING of the Nottingham Section took place on December 20 at University College. The first paper was by the Chairman, Mr. S. R. Trotman, M.A., on

THE PREPARATION OF GLUE FROM LEATHER.

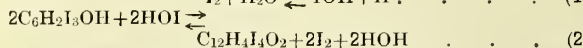
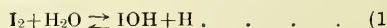
The author's process of recovering gelatin from scrap leather essentially consists in treating the leather with alkali. Sodium peroxide is then added to convert: (1) The chromium in chrome leathers to chromates; (2) the tannins into non-tannin substances in the case of vegetable tanned leathers. In this case the tannins are destroyed, no reaction being obtained even on prolonged contact with iron alum. The tannins are converted into peculiar resinoids.

In the discussion Mr. Quibell referred to experiments with the acid process which he had carried out on chrome leather. The consumption of reagents was stupendous, and no satisfactory separation of the chromium occurred. Messrs. Pentecost, Law, J. Smith, and Dunford joined in the discussion, and Mr. J. T. Wood expressed his opinion that Mr. Trotman had originated a valuable process which might possibly affect the glue market. Mr. Trotman stated, in reply, that as regards time, much depended on the condition of the material, but thought that two to three days would generally complete the process. Professor Kipping, F.R.S., congratulated Mr. Trotman on his discovery, and hoped it would be commercially successful.

Mr. J. M. Wilkie, B.Sc., then read his paper

ON THE ACTION OF IODINE ON PHENOLS, PART II.

This was entitled "The Catalytic Decomposition of Tri-iodophenol." This paper, the author stated, originated with the observation that in the method he devised some time ago, for the determination of carbolic and salicylic acids, the reaction produced was at times nearly white, and at others deeply coloured. Though this had no effect on the analytical aspect, his curiosity was aroused, as this showed that tri-iodophenol is exceedingly easy of conversion to Lautermann's red body. After many experiments, he found that the explanation lay in the fact that iodine has a catalytic action in promoting the decomposition—hypoiodous acid in all probability being the actual form. The equations



will represent the action that goes on. It will be seen that as the reaction proceeds hydriodic acid is accumulated in the solution, and its amount serves as a convenient index of the degree to which the reaction has progressed. The experimental conditions are simple. A supersaturated solution of the tri-iodophenol is prepared in dilute caustic soda. This is diluted, and a single drop of decinormal iodine added. The progress of the reaction is increased by the initially colourless solution first of all assuming a pink tint which quickly deepens, and in the course of a few minutes is of a magnificent dark red. In many experiments the hydriodic acid split off corresponds to over 500 times the amount of iodine initially added. It is noteworthy that the reaction does not take place in neutral solutions. There must be slightly alkalinity. Excessive alkalinity inhibits the reaction. The work was carried out in the laboratory of Boot's Pure Drug Co., Ltd.

Professor Kipping said that the reaction is of great interest, and inquired if Mr. Wilkie had tried the effect of other oxidisers. He wondered if such unstable compounds undergo change in the air. Had any experiments been carried out with the corresponding tri-bromophenol? Mr. Wood and Dr. Sand also took part in the discussion. Mr. Wilkie, in reply, stated that he had tried other oxidisers. Chlorine and bromine could act as starters, but as hydriodic acid is always present they simply act by liberation of iodine, and so the iodine condition is at once realised. Both tri-iodophenol and the red sub-

stance are stable in air. He had been unable to obtain any similar reaction with tri-bromophenol.

In a paper by Mr. Henry B. Lake, of Winnipeg, on

THE "LUMINATOR" TREATMENT OF WATER,

analyses were given of water before and after passing over aluminium plates at different velocities, and also after the previous addition of aluminium sulphate. Slight differences in the hardness and mineral constituents of the water are found, but there is no conclusive evidence of any change having been produced in the chemical composition of the water. The action of the aluminium metal does not appear to have exercised any inhibiting action on the usual effect of adding alum to hard water. The tests also showed that there is no marked difference between passage in daylight or darkness.

In the discussion Mr. L. Archbutt said he was afraid the "Luminator" as a water-softener has not been such an unqualified success as the statements made with reference to it would lead one to believe. On the other hand, the "Luminator" is being used to treat water of which the hardness is mainly temporary where it is stated to be working quite successfully, causing the carbonate of lime to deposit in the boiler in a loose pulverulent form instead of an adherent scale. Dr. Sand also spoke, remarking on the possibility of the process having a rational basis.

Chemists' Assistants' Association.—The first half of the thirty-fifth session was brought to a close on December 21 by a smoking-concert held at 73 Newman Street, London, W. The chair was occupied by Mr. A. R. Arrow-smith, and the company included Messrs. F. Naylor (President), P. B. Phillips and W. P. Styles (Secretaries), Dr. Wahnsley, S. C. G. Tweedy, L. Cooper, A. Latreille, R. E. Lownsbrough, H. B. Everson, G. E. Williams, T. L. Beverley, and B. R. Wilkinson. Songs were contributed by Messrs. H. Grange, P. Barrs, H. B. Everson, A. Latreille, A. C. Johnstone, and J. S. Waddell. Mr. G. Cooper gave a violin solo, and Mr. W. D. Rees some short stories. There were also recitations from Mr. Lownsbrough and Mr. A. O. Roberts. Mr. Phillips and Mr. L. Browne gave musical sketches and Mr. George exercised his skill as a conjurer. Mr. A. Haigh acted as accompanist. During the interval a collection was made on behalf of the Benevolent Fund, which realised 1*l*. At the conclusion a vote of thanks was given to Mr. Arrowsmith.

COMING EVENTS.

This section of the "C. & D." is reserved for advance notices of meetings or other events which are sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Tuesday, January 2.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 3 p.m. Dr. P. Chalmers Mitchell on "The Childhood of Animals" (Lecture III.). The other lectures of the course will be on January 4, 6, and 9.

Wednesday, January 3.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, at 3 p.m. Council meeting.

Thursday, January 4.

Great Yarmouth Pharmaceutical Association, 156 King Street, at 8 p.m. Ordinary Meeting.

Chemists' Assistants' Association, 73 Newman Street, Oxford Street, London, W., at 9 p.m. Social Evening.

WESTERN PHARMACISTS' ASSOCIATION.—The annual Cinderella dance will be held at the Restaurant Frascati, Oxford Street, London, W., on January 10. Tickets are obtainable from the Secretaries, Mr. A. Latreille, 48 Baker Street, W., and Mr. R. E. Lownsbrough, 35 Clifton Road, Maida Vale, W.

PETERBOROUGH ASSOCIATION OF PHARMACISTS.—The annual dinner will take place at the Grand Hotel on February 1, at 5 p.m. The President of the Pharmaceutical Society (Mr. C. B. Allen) will be present. Tickets (5*s*. each) from Mr. H. E. Noble, Hon. Secretary, Long Causeway.

THE CHEMISTS' BALL.—The Hon. Secretary (Mr. Alan Francis, 22 to 30 Graham Street, City Road, London, N.) has the tickets ready for the Chemists' Ball, to be held on January 17, and he will be pleased to forward any tickets that may be required on receipt of a remittance of 12*s*. 6*d*. for a lady's ticket and 17*s*. 6*d*. for a gentleman's.

Practical Notes and Formulae.

Lubricant for Glass Cocks.

Two varieties of this are given in the "Journal de Pharmacie et de Chimie":

	1	2
Gutta-percha tissue	16	25
Soft paraffin	12	20
Hard paraffin	1	1-1½

The paraffins are melted together, and the tissue (cut small) is introduced, and the heat continued until a uniform mass results. The second formula yields a softer lubricant.

Salad-dressing.

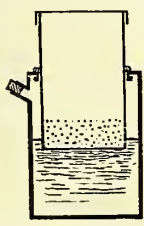
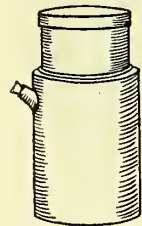
AN American druggist who makes a speciality in the sale of pure olive oil for culinary purposes gives free with each bottle a recipe for salad-dressing. He finds that this stimulates the sale of the oil and pleases his customers. This is the recipe he gives:

Olive oil	12 oz.
Condensed milk	8 oz.
Tarragon vinegar	3 oz.
Eggs	4
Salt	a teaspoonful
Mustard	a teaspoonful
Paprika	½ a teaspoonful
Wine-vinegar a sufficiency to make into a cream	

The eggs are beaten with the condensed milk and the olive oil; the tarragon vinegar is mixed with the condiments, added a little at a time to the milk-emulsion, and the consistency adjusted by the proper amount of wine-vinegar.—*Druggists' Circular*.

Preparing Camphorated Oil.

MR. F. F. ERNST, of Boston, U.S.A., supplies, in "The Apothecary," an account of several time-saving appliances



he has devised for use in his pharmacy. From these we have adapted the following. The first sketch shows the outer view of the apparatus, which is made of tin. The sectional drawing gives the other details. From these it will be seen that the oil is placed in the outer vessel, and the flowers of camphor

in the inner perforated vessel, which dips a little below the surface of the oil. The inner vessel fits into an opening in the top of the outer tin, and is itself provided with a cover. The spout on the left-hand side is used for pouring out the finished camphorated oil. It only takes two or three days to make a batch of the oil, neither stirring nor heat being required.

Flavouring Extracts.

THE sale of flavouring extracts by chemists is declining. According to Mr. Darwin W. Irvine, Ph.C. ("American Druggist"), this is due to the fact that close attention is not given to this branch in the pharmacy. Mr. Irvine urges pharmacists to cultivate the supply of flavours for domestic use, and supplies the following formulæ:

Lemon-flavour.

Terpeness lemon oil	½ dr.
Lemon oil	3 oz.
Colouring	a sufficiency
Spirit	128 oz.
Water	128 oz.

Almond Extract.

Essential oil of almonds (free from hydrocyanic acid)	1½ oz.
Fluid extract of wild cherry (soluble) ...	8 oz.
Spirit,	
Water, of each a sufficiency to make	128 oz.

Vanilla Extract.

Oleo-resin vanilla ...	3 oz.
Glycerin	24 oz.
Spirit,	
Water, of each a sufficiency to make	128 oz.

Imitation Vanilla-flavour.

Vanilla	½ oz.
Coumarin	1 dr.
Glycerin	8 oz.
Caramel	a sufficiency
Spirit	16 oz.
Water to make, ...	128 oz.

If these formulæ are to be taken as representing what American druggists sell, we are not surprised that sales are declining there. The products are ridiculously weak.

MEDICAL GLEANINGS.

Nasal Pomade.

To protect against infection and catching cold, a small quantity of the following nasal pomade should be inserted in each nostril night and morning:

Peru balsam	3vj.
Lanolin	3v.
Vaseline	3x.

Bulling's Inhalant.

IN bronchial affections with abundant expectoration it is recommended ("Bulletin Médical") that pieces of blotting paper soaked with Bulling's inhalant be placed in various parts of the sick-room. The liquid is prepared from the following recipe:

Menthol	2 parts
Eucalyptol	2 parts
Turpentine oil	5 parts
Juniper oil	5 parts

Sugar as a Medicament.

DR. A. H. CARTER in the "British Medical Journal" (1911, II., 1401) gives particulars of a case of cardiac-muscle failure which has been much benefited by the employment of cane-sugar. This is following up a series of cases which Dr. Goulston reported earlier in the year. The patient had previously avoided sugar and was given 2 to 4 oz. daily, with the result that improvement in her condition took place after the middle of the second week, and "by the end of the fifth week it was remarkable." A strict diet was prescribed at the same time.

Diphtheria Antitoxin.

DR. D. MONTGOMERIE PATON, Melbourne, Vic., states ("British Medical Journal," 1911, II., 1106) that he has been in the habit of administering with good results antidiphtherial serum *per ora* in doses of 2,000 units hypodermically once, and 5j. of a 200 units per c.c. serum by the mouth every four hours. The theory behind this practice is that there are two lines of defence—the lymphatic and the systemic—the first is antitoxic and the second is for increased cell-resistance. Both are in the serum. Together these form the whole resistance of the animal.

The Use of Scarlet Red.

MR. JAMES RAE, of the Park Hospital, Hither Green, S.E., gives in "The Lancet" the following experiences of the use of scarlet red:

Since April last I have prescribed it in almost eighty cases in this hospital. In the great majority of these it was given for intertrigo of the ears or of the napkin area, and certainly seemed to produce marked improvement in even twenty-four hours. One case in which I used it had an irregular raw area (measuring about 10 by 6 cm.) on the scalp over the left parietal bone due to a burn. This was treated with scarlet red and in nineteen days was completely covered with smooth, supple skin, on patches of which hair is now growing. To set off such a satisfactory result I may mention one case of suppurating hip-joint disease, the wound of which had completely broken down, and one case of fæcal fistula with much skin irritation. In both these scarlet red failed, and in the latter made the condition worse in the short time it was applied. This emphasises the necessity of having the surface clean, as you quote from Schmieden. My experience is limited to one form—that procurable from Zimmermann. I have noticed that after a time a gritty sediment forms in the preparation. This seems to show that it is preferable to make it up frequently in small quantities at a time.

Treatment of Rhus-poisoning.

WRITING in the "Journal of the American Medical Association," Dr. Addison W. Baird, New York, says that for nearly twenty years he was regularly a sufferer from ivy-poisoning, and none of the usual remedies had any effect. This year and last permanganate of potassium solution (2 to 4 per cent.) gave almost instant relief, checking the disorder even when started on the face. If treatment has been begun late and a condition of eczema exists after the activity of the poison has ceased, soothing ointments may be permitted. The permanganate stain may be removed by washing with a solution of oxalic acid.

BUSINESS CHANGES.

Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.

MR. J. EDWARDS has purchased the business of Mr. E. Thornhill, chemist and druggist, 33 Station Road, Redhill. MESSRS. THOMPSON & CAPPER, homœopathic chemists, have opened their new premises at 36 John William Street, Huddersfield.

MR. A. G. DOBLE, chemist and druggist, Tavistock, has purchased the business of Mr. H. Bartlett, chemist and druggist, 12 Market Place, Banbury.

MR. CHAS. WILLMER has opened businesses at 117 High Street North, East Ham, 47 Stratford Road, Plaistow, 75 Portway, West Ham, 47 Upton Lane, Forest Gate, and 633 High Road, Leytonstone, London, E.

MR. E. F. HARRISON, B.Sc., etc., 55 Chancery Lane, London, W.C., intimates that Mr. P. A. W. Self, B.Sc., etc., who has been his senior assistant for several years, will join him as a partner on January 1, 1912, and from that date the practice will be carried on under the name of Harrison & Self.

NEW BOOKS.

Who's Who, 1912. 7¼×4¾. Pp. xxvi+2364. 10s. net. *The Englishwoman's Year Book and Directory, 1912.* Pp. xxv+390. 2s. 6d. net. *Who's Who Year Book, 1912-13.* Pp. vii+168. 1s. net. *The Writers' and Artists' Year Book, 1912.* Pp. vi+139. 1s. net. (Adam & Charles Black.) [This series of books is an interesting example of bibliographic evolution. The subjects dealt with in each formed in the first instance the constituents of "Who's Who," but in the growth of that most valuable reference-book one after the other of the three smaller volumes has been shed off. "Who's Who" is, we should think, the most frequently consulted book in the English language. It contains personal particulars of about 24,000 persons in the United Kingdom, besides the more important foreign personages, the subjects of biographies being mostly persons whose names are not to be found in books dealing with the peerage, baronetage, and other distinctions which mark men apart from their fellows. The 1912 volume is improved in certain respects, even in its external appearance. "The Englishwoman's Year Book" is edited by Mr. G. E. Mitton, who has been assisted by an Honorary Consultative Committee of women distinguished in various walks of life, such as Mrs. Ayrton, Lady Huggins, Mrs. J. R. Green, Lady Strathely, and Dr. Margaret Todd. Part I. of the Year Book deals with Education, Professions, and Social life, and Part II. with Philanthropic and Social work. The information is brought up to date and is of real service to women workers. "Who's Who Year Book" consists of tables that were formerly given in "Who's Who," such as the Royal Family, Ambassadors, Ministers, etc., Church of England and Clubs, Parliament, and so on. In "The Writers' and Artists' Year Book" there is very full information regarding journals and magazines published in this country and in the United States, with lists of publishers extending to Canada, Australia, South Africa, and India.]

Synthetic Sentences.

We are offering six half-guineas as prizes for sentences made up of words selected from the advertisements in the "C. & D. Diary, 1912." Appended are some of the sentences received. Others should be sent as soon as possible.

To be progressive and secure of success, every pharmacist should read *The Chemists and Druggists Diary*.—J. T. Walters (15 Old Street, E.C.)

THE CHEMIST AND DRUGGIST is the greatest and most attractive means of advertising chemists' and druggists' goods.—Florence M. Williamson (Wilmslow).

Lloyd George, the "smart" Welshman, ensuring people's 9d. for 4d., does not ensure chemists 50 per cent.—Wm. Crozier (Monkwearmouth).

Lu-ku! E'no Fiz (W)right that Avery Chemists' and Druggists' Diary Sehutze' Bayer Welleome Business for advertisers.—G. J. Lindsay (Dundee).

Fill up and post your cards early, so as to facilitate the work of adjudication. Eight guineas are allocated for Card No. 1.

TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, London, E.C., December 28.

BUSINESS in the drug and chemical markets has been suspended during the greater part of the week covered by this issue, consequently there is little of interest to chronicle. There is, however, a steady undertone about the markets generally, and the outlook for business is very favourable. Refined *Camphor* is steady, with sellers of Japanese 2½-lb. slabs for January-February shipment at 1s. 6½d. and ¼-oz. at 1s. 7½d. per lb. c.i.f. China *crude* is quoted 150s. per cwt. spot. The market for *Chamomiles* remains firm, with the cheaper qualities still tending upwards, whereas there is no change on the better descriptions. In view of the proximity of the new fishing season several cheap sales of Norwegian *Cod-liver oil* are reported by holders anxious to clear; business has been done at 103s. per barrel c.i.f. terms. Rather firmer prices are asked for raw West Indian *Lime-juice*, some of the recent arrivals being held off the market until the auction; from 1s. 4d. to 1s. 6d. per gal. is quoted as to quality. As regards *Lemon oil*, a Palermo advice of December 23 states that the position remained firm, and local requirements to fulfil contracts for December caused some stringency for both old and new spot oil. Buyers of new-crop oil have shown considerable interest, and some contracts for the whole of next year were closed at full market values. This gave fresh encouragement to the reserved feeling among growers. For forward shipment new crop is quoted 5s. 2d. per lb. c.i.f. terms. *Orange oil* has fluctuated slightly in primary markets during the course of the week ended December 23, some local requirements having given occasion for holders to obtain somewhat higher figures for the moment. On the whole the position remains unchanged and quiet, *sweet* offering at 7s. 8½d. and *bitter* at 8s. per lb. c.i.f. London. *Bergamot* remains very firm and scarce, spot offering at 22s. to 23s. per lb. *Citronella oil* is quiet at 1s. 0½d. for drums and 1s. 1½d. for tins on the spot, while to arrive 11d. to 11½d. c.i.f. is quoted. *Lemongrass oil* is firm at 5d. per oz. on the spot, and for "Red Ship" brand of *Star-anise oil* sellers quote 5s. 9d. spot, with 5s. 4d. c.i.f. paid for November-December shipment. *Sandalwood oil* remains firm, and some anticipate again higher prices early in the New Year. Best English distilled from E.I. wood is quoted 11s. 6d. and Continental distilled at 11s. per lb. Although the *Otto* of rose market in Bulgaria remains firm, there is still a cheap spot seller at 45s. per English oz. Japanese *Peppermint oil* is quoted at 7s. 9d. per lb. on the spot for Kobayashi.

Writing from Smyrna on December 15 our correspondent reports a very active and excited week for opium, with an advance of fully 2s. 3d. per lb. all round. The sales amount to 143 cases, the last prices paid being as follows: Old selected extra Karahissar, 32s. 6d.; new ditto, 29s. 9d.; current qualities old or new, as to quality, 26s. to 28s. 6d. It has rained this week in the Interior, and therefore the long-retarded sowings have commenced; nevertheless a mild winter is needed to recoup somewhat the last autumn sowings. Market closes very firm, with buyers at above quotations. The arrivals in Smyrna amount to 1,015 cases, against 4,143 at same date last year.—Another correspondent writes that the 144 cases sold were for England and the U.S.A.; at the opening 40 cases sold at 250 piastres for new Karahissar, but at the close holders ask 275 pts., or equal to 30s. per lb. for this quality; old Karahissar closes at 285 pts., or equal to 31s. per lb. With buyers present, further sales cannot be effected except on

the payment of higher rates. The stocks are becoming exhausted; it is said there are only about 500 cases in Smyrna and about 400 cases in Constantinople, which will not be able to satisfy the demand until the new crop. The *Spice* markets have been closed since our last, and little business, with the exception of *Pepper*, has been done; sellers of fair Singapore quote 5½*d.* spot and 5¾*d.* c.i.f. for January-March. Lampong is dearer, January-March shipment having sold at 5¾*d.* c.i.f. d.w. and October-December at 5½*d.*; sellers of Tellicherry for March-May quote 5½*d.* to 52*s.* per cwt. c.i.f. *White* Singapore is offered at 7½*d.* spot, and small sales thereat; sellers of January-March quote 7½*d.* and Penang 6¾*d.* per lb. c.i.f. d.w.; 30 tons Muntok has been sold at 8¼*d.* c.i.f. for January-March and February-April shipment. *Cloves* have been quiet, fair Zanzibar offering at 5¼*d.* per lb. spot, and for October-December there are buyers at 4¾*d.* and sellers at 4½*d.* c.i.f. *Arrowroot* is slow, with small sales at 3½*d.* per lb. for fair manufacturing St. Vincent. *Shellac* is also slow at unaltered prices, fair T.N. Orange offering at 63*s.* 6*d.*, and December-January shipment to arrive at 62*s.* 6*d.* c.i.f., and A.C. Garnet at 60*s.* c.i.f. for January-March shipment. Futures are unchanged, January offering at 63*s.* 6*d.*, March 64*s.* 6*d.*, and May 65*s.* 6*d.* Values of *Turmeric* are nominally unaltered at 26*s.* to 27*s.* for Madras finger and 15*s.* per cwt. for Cochin split bulbs. *Turpentine* is about steady, American closing at 37*s.* 6*d.* per cwt. on spot and 37*s.* 9*d.* for January-April. *Petroleum* is again firmer, spot Russian offering at 6¼*d.* to 6½*d.*, ordinary refined American at 6¼*d.*, and water-white at 7½*d.* to 7¾*d.* per gal. It is said that the quantity of *Menthol* and *Peppermint oil* available for January-March shipment from Japan is not expected to exceed 300 piculs, which is equal to 40,000 lb., or 666 cases, which is considerably below what is required for normal consumptive requirements until the next crop is available. Market is quiet this week, Kobayashi offering at 27*s.* 6*d.* and Suzuki at 26*s.*, or 19*s.* 6*d.* c.i.f. for January-March from second-hands. *Morphine* remains firm, the makers' quotation for hydrochloride powder being from 13*s.* 9*d.* to 14*s.* per oz. *Codeine* is also firm at last week's advance of 1*s.* 5*d.* per oz., the official price for the pure crystals on 100-oz. contracts being 19*s.* 6*d.* per oz. *Foreign Tartaric acid* is offered at 1*s.* 0¼*d.* for delivery over 1912, prompt delivery being 1*s.* 0½*d.*; English is 1*s.* 0¾*d.*; foreign *Citric acid* is 1*s.* 4½*d.*, and English 1*s.* 4¾*d.* *Quicksilver* is 8*s.* 2*s.* 6*d.* per bottle from first-hands. It has practically been decided that the price of *Acetate of lime* will be advanced 1*d.* in January, which would make the quotation 11*s.* 5*s.* c.i.f. for 80-per-cent. grey. A large business has recently been done in Curaçao *Aloes* of *talequale* quality on the Hamburg market, chiefly for export, and stocks there are now depleted; a fair quantity has also been sold from London. *Senega* is firm at 2*s.* 7*d.* per lb. spot, and *Copaiba* continues scarce at from 2*s.* 1*d.* to 2*s.* 3*d.* per lb. for Maracaibo (B.P.). A small arrival of Russian *Quince* seed has taken place, which will be offered at auction; for Matto Grosso *Ipecacuanha* 9*s.* 3*d.* is asked, and 9*s.* for Minas; deliveries are expected to be good during December.

We note the arrival of 600 cases Curaçao *Aloes* from Hamburg (these are for re-export); also 25 cases of Cape. Among other arrivals this week are: 78 packages cardamoms and seeds, 240 packages West African cinchona, 10 cases dragon's-blood from Singapore, 25 bags ergot from Hamburg, 110 cases eucalyptus oil, 130 bags Persian galls, 14 cases gamboge *via* Havre, 20 cases menthol *in tr.* from Japan and 10 cases for London *via* Havre, 58 cases opium *via* Marseilles, 40 cases peppermint oil *via* Havre, and 188 bales Tinnevely senna from Tuticorin.

A Year of High Prices.

WITHOUT attempting to survey in detail the many changes which have occurred in the drug and chemical markets throughout the year, we here indicate briefly some of the leading characteristics of what has proved to be, taken altogether, a period of remarkably high prices, and one which is practically without precedent for the

number of drugs which have shown a spectacular rise in values. These abnormal conditions have naturally made business disappointing at times for both buyer and seller. Dealers have frequently been deprived of profits and commissions simply because the inquiry has been for certain qualities and descriptions of a product which has been difficult to obtain as a result of scarcity. The buyer, on the other hand, is occasionally somewhat slow to make allowance for abnormal conditions, and is inclined to complain when he cannot obtain what he requires "at a price"; the result is he buys less. Several factors have contributed to this upward movement in the crude-drug market. One of the principal influences has been the almost unprecedented hot weather and drought in Europe, which has caused many products, such as roots, barks, leaves, seeds, etc., to rise much above normal value. Among these may be included henbane, belladonna, ergot, digitalis, valerian, chamomiles, burdock, etc. The falling-off in supplies is also attributable to the fact that on the Continent (especially Germany) herb-gatherers and pickers have found more remunerative work. The practical failure of the ergot crops in Russia and Spain has driven up prices to what appear to be exorbitant figures, and for the greater part of the year the values have ruled between 4*s.* and 5*s.* per lb., whereas in normal years prices were between 9*d.* and 10*d.* The position is of course due to a genuine scarcity, following on the drought. The high prices, it is argued, would certainly have stimulated picking or brought out larger supplies had they existed. The crop of both Russian and Spanish has been of finer and bolder quality this season, there being little distinction between the two as regards size of the fungus. The rise in opium values, due to the poor Turkey and Persian crops, is an outstanding feature. We have indicated as occasion arose the leading events in this market, which has practically reached 30*s.* per lb. There is yet six to seven months before the new harvest is available, but with the spring of the year the reports as to the growing crop, if at all favourable, must usher in lower prices. The Persian crop was also a failure, and economic conditions in that country point to the fact that normal crops of 4,000 cases annually are a thing of the past, considering that the China market is closed to Persia as well as Turkey from January 1912.

Morphine, codeine, and apomorphine have followed the advances in opium. The position of menthol has become unique this year, having risen from about 11*s.* 6*d.* to 30*s.* per lb. We indicated the leading features in our issue of October 28, and there has been no material change in the basic conditions since then. We may add that the extreme price has considerably reduced consumption, which under normal conditions was increasing. The paucity of stock everywhere, the insistent demand for American account in October, a short crop of menthol, and the squeezing of "bears" by the Japanese were the contributing factors in driving up the price. We are afraid the present conditions are likely to last well into the spring of the New Year, and although many consumers are deferring purchasing, it would seem their best policy to take advantage of offers which are occasionally made below current market values. Unquestionably, Japanese speculators have the whip hand of the situation, inasmuch as they now have control of the bulk of the stocks. The astute ones foresaw that with the increasing demand there was going to be a big shortage this year, and took advantage of the situation by buying largely. In the interim, however, Hamburg houses sold for forward delivery considerably more menthol than is now obtainable—hence their unavailing efforts to get the market down with "bear" quotations. Those who hold menthol will of course "feed the market," and the unhappy consumer will not buy an ounce more than he can help. Milk-sugar reached extreme prices during the autumn, as the world's supply of milk was considerably reduced, but the coming year should see a return to more normal conditions. A light crop of otto of rose brought about extreme rates in the summer, which has meant an increased use of synthetics. Lemon oil has also been very dear, and the

position of the new crop is a puzzle; apart from any serious shortage in lemons, the market has been well bolstered up by Sicilian speculators, and the high prices asked have deterred buyers from placing their forward orders freely. Santonin has remained under the close control of the Turkestan Syndicate, who have raised their prices enormously, partly owing to the fact that the crops of wormseed have been a failure during the past three years and the elimination of competition.

The rebellion in China at one period acted as a stimulus to advancing prices for rhubarb, anise and cassia oils, cantharides, galls, and a few minor products. Chinese galls especially have become extremely scarce—hence the rise in all gallic products. But in Chinese drugs generally there has been no pronounced advance, probably because of a natural anxiety to turn the stocks in the godowns at the principal ports into money. In some instances the advance scored at the beginning of the rebellion has been lost, but it should be pointed out that the effect of the uprising may be cumulative, and its influence on the production of drugs may not be discernible for a lengthy period. The hostilities between Turkey and Italy have as yet had no pronounced effect on Levantine produce, probably owing to the limited area of the dispute. So long as the area is strictly confined and no complications arise, its effect on produce will be practically *nil*. Apart from this, however, a feeling of commercial insecurity has been fostered by the outbreak, and as long as the Turkish-Italian war lasts it is thought unlikely that confidence can be easily recovered. As a whole, the year has been a very prosperous one to those engaged in the chemical and drug trades, and this in spite of the great labour unrest and threatened international complications. Rising markets, as a rule, make for "profits," and this has been the case this year.

Heavy Chemicals in 1911.

IN reviewing the position of the heavy-chemical market during the year 1911 it must at once be admitted that it is a rather difficult matter to point to any noteworthy occurrence which makes this year stand out distinctively from any other year. Probably the most important features are the volume of business which has been done and the general steadiness and comparatively narrow fluctuations of prices, more especially with regard to the main products of the heavy-chemical market. It is true that the prospects of trade for 1911 were originally depicted as being good and that a briskness was generally anticipated; but we venture to say that these predictions have been fulfilled in a much greater degree than was ever expected in any quarter, both as regards the home and export trade. The next feature of interest has doubtless been the increased proportion of business done directly between the actual manufacturers and actual consumers without the intervention of the middleman. This point has been referred to in previous reviews, and keen competition, along with narrow margins of working profit, has been responsible for the extension of the system. Middlemen must find, in fact, in the position of affairs room for the greatest anxiety as regards the heavy-chemical trade proper, and it would seem that it is only those who are favoured by very special circumstances, favourable connections, or what may be described as special lines, who are at all likely to continue to work at all lucratively. The policies of restriction of consumption by makers and "understandings" between manufacturers sometimes made public, but in many cases confidential, with regard to spheres of influence and needless competition, were certainly never so widely adopted as at present, and it is safe to say that the tendency is towards an extension of such policies rather than otherwise. This does not mean that consumers are unjustly treated, because with the competition from all countries in what may be called manufactured products there is no room for the chemical manufacturer or raw material supplier to hold out for exorbitant profits, as in such case he knows that the outlet for his products

would vanish. On the contrary, consumers have more probably benefited, since the various manufacturers being practically assured of a steady and regularly demand in known districts have not only been able to control their costs and expenses better, but have also been able to devote a greater part of their time and abilities to improving and perfecting manufacturing processes and plant, all with a view to cheaper production and consequent saving to consumers, or at any rate balancing the disadvantages of increased costs of raw materials, fuel, higher wages, etc., which amounts in the long run to the same thing.

Turning to a consideration of the various groups of products, those classed under "Alkali Produce" really call for little special comment. The demand has been an active one, and at varying periods there has been a scarcity in supply of some product or other; probably the most disappointing of the better-known products has been hyposulphite of soda, which is killed by senseless competition. Values have ruled steady. As regards alumina products, the general demand has probably been heavier than ever before, and prospects point to further increases. The growing tendency to favour higher concentrated products continues, though it is not very clear why this should be so. Prices have advanced slightly owing to increased costs of manufacture, but generally speaking they are very low. The position of barium products has been much the same as last year. The all-round demand has been heavier, but the competition has grown keener than ever. New supplies have come on to the market, though previous interests have not given them much opening up to the present. Strontium products have all along been quiet. The miscellaneous demand has been a good average and possibly greater than usual, but the decline in the principal demand is what is troubling manufacturers. Benzols have been a steady and good trade, and for a large part of the year have been on the scarce side, with consequent firmness. Much the same remarks may be applied to lead products. Zinc and magnesium compounds call for no special comment, but business generally has been of a satisfactory nature. Sulphate of ammonia closes the year considerably higher in value than last year; in fact, some 30s. per ton higher. Supplies have been well taken up throughout, and good prices have ruled. When one considers the greatly increased production, there can only be one explanation of the position—i.e., sulphate of ammonia can and does displace other articles, and the world can still take a lot more.

Extract. Filicis Maris.

In further reference to our recent remarks, it is freely reported that there have been two classes of buyers in this country—the genuine dealer and those who bought with some knowledge of the present conditions, knowing that pure extract could not be supplied. The principal supplier in Germany appears to have been victimised, and is said to be about to bring an action against his manufacturer. Meanwhile, buyers here are claiming pretty substantial allowances, and it is reported that if these allowances are met it will pay to make and deliver pure extract. If this should be done, this country will have enough male-fern extract in stock to last for a considerable time, and prices in that case will materially recede. We understand that 100 kilos. of root grown in a certain district are being sent over to be manufactured into a pure extract to afford the opportunity of a fuller study of the subject. The root is to be submitted to Mr. E. J. Parry to deal with as he thinks proper.

Buchu Collectors' Tax.

It is stated that a cable was received in London on December 23 by a leading firm of buchu importers to the effect that the tax on the collection of buchu on Crown lands in the Union of South Africa had been increased by 1s. per lb., now making it 1s. 6d. No confirmation of this has yet been received from an official source, and as only one firm has received the information, we give it with reserve. It may be recalled that just a year ago the tariff on the collection of buchu was raised from 3d. to 6d. per lb., as reported in the *C. & D.* of January 28, 1911, further information being given in our issue of February 25, 1911. As about three-quarters of the round buchu is collected on Crown lands, this increase in the tax will have an important bearing on the future of the market. It is estimated that the lay-down

cost of buchu at Cape Town will now be about 3s. per lb., this including the tax, the cost of collection, which now runs to about 1s. per lb., and the freight to Cape Town. Meanwhile there is nothing doing in the buchu market, buyers and sellers' ideas of values being somewhat wide.

German Drug-trade in 1911.

Messrs. Brückner, Lampe & Co., in their annual report on German trade and chemicals during 1911, state that the demand for home and export was brisk, accompanied with a marked advance in prices of natural and synthetic products. The output of certain raw materials, such as acids, ammonia, etc., failed at times to keep pace with the demand for consumption. The home demand for medicines was active throughout, and the uncertain political situation led to the completion of war hospital stocks in Europe. After referring to the effect of drought on drug production, the report states: Profits generally were only moderate, this being partly due to increased legislative burdens placed on trade. Settlements of accounts have been more prompt owing to the introduction of postal cheques. Finally, it is stated that the formation of syndicates and price conventions, as well as co-operative buying associations of all kinds, is hampering private initiative and reducing profits.

Cablegram.

NEW YORK, December 28:—Business is quiet. Opium is firm at \$8.50 per lb. for druggists'. Peppermint oil in tins is easier at \$2.85. Jalap is lower at 28c. Ipecacuanha is steady at \$2.35 for Cartagena. Sarsaparilla is also steady at 18c. for Vera Cruz. Cascara sagrada is dull at 9c. per lb., and copaiba is firm at 50c. per lb. for C. & S. American.

POISONING FATALITIES.

FOUR fatalities have been reported as due to poisoning since our issue of last week. In one case a Coroner's jury found that death was caused by misadventure.

Carbolic Acid was the agent used for self-destruction by Amelia Long (63) at Norwich. Mr. H. G. Smith, chemist and druggist, Downham Market, stated at the inquest that he sold the deceased a sixpenny bottle of carbolic acid last August.

Morphine.—Surgeon Gordon Moir, R.N., was found dead in a bedroom at the Lockyer Hotel, Plymouth, with a broken hypodermic needle in his forehead and some phials containing morphine near by. It is thought deceased took an overdose of the drug.

Strychnine-poisoning caused the suicidal death of Wm. Richard Crouch (55), under-gamekeeper, St. Osyth.

Veronal.—At Preston, Penelope Kay Sanderson (39) died from an accidental overdose of this soporific. The jury, in giving their verdict, stated that some restriction should be placed on the sale of such drugs as veronal.

The Westminster Coroner (Mr. J. Troutbeck), during his inquiry into the death of Mr. Augusta Lichtenstadt (61), stockbroker, Grosvenor Street, London, W., was informed by deceased's valet that Mr. Lichtenstadt had been in the habit of taking drugs, including veronal, for six years. Dr. Freyberger said he thought it was impossible to dissociate veronal from the cause of death. The drug was cumulative in action. There was no indication that a larger dose than usual had been taken, but when veronal was taken for a number of years part of it remained in the system, and a perfectly normal dose might cause death. The jury found a verdict of "Death from natural causes," and expressed the opinion that the law in regard to the sale of veronal ought to be strengthened. The Coroner pointed out that on the label of the bottle found "Veronal" was the largest word, and in the smallest print, which a great many old people could not read at all, were the words: "*Maximum* dose 10 gr.; full dose should never be given until the patient's susceptibility to smaller doses has been determined." From what they had heard from Dr. Freyberger, he thought that piece of advice was rather foolish.

MORPHINE, ETC., IN HYDERABAD.—The "Gazette of India" of November 25 contains the text of the "Hyderabad Intoxicating Drugs Law, 1911," which regulates the importation, transport, sale, and possession of morphine, coca, cocaine, and cocaine substitutes in the areas in the Hyderabad State in which the Governor-in-Council exercises jurisdiction through the Resident at Hyderabad. The law provides that no morphine, cocaine, or cocaine substitutes shall be imported into or sold in the State except by licensed druggists and medical practitioners, while the importation and sale of coca is entirely prohibited.



Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with.

Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest.

Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.

The National Insurance Act and Representation.

SIR,—There can be no doubt that the present time marks a very serious crisis in the history of pharmacy. The National Insurance Act, which has now become law, has created a set of conditions that is unique, in that, failing the strong and united action of the Pharmaceutical Council, the prosperity of a large section of the craft is threatened. While we recognise and appreciate the splendid services to the profession which the present Council has rendered, it must be apparent that their hands will have to be strengthened before they can demand from the Insurance Commissioners the consideration due to the trade. This result can best be obtained by an alteration in the system of representation. Under the existing method representatives are chosen without any reference to the locality from which they are selected, the consequence being that certain districts are well represented, while others are entirely untouched. The outcome of this is that the interests of a large number of pharmacists in various parts of the country are completely ignored, for what can a representative from, say, Cornwall know of the conditions existing in Northumberland? In order, then, to secure adequate representation for all parts of the country, to ensure that the Council shall have accurate information as to the conditions obtaining in each district, and the feeling of the resident pharmacists as to the best means of dealing with these conditions, I venture, with all modesty, to suggest the following scheme:

(1) The formation of Pharmaceutical Associations in all districts not already covered by such associations. The objects of these would be to examine the conditions obtaining in their own localities, to formulate the best means of meeting those conditions, and to obtain from the local Insurance Committee the most favourable treatment possible under their special circumstances.

(2) The grouping of these separate associations into areas, comprising six, eight, or more associations, as might be thought best for each area. For example, the eight associations of North Wales might form one area, those of South Wales another, England and Scotland being similarly treated. Ireland, in things pharmaceutical at least, is well able to manage her own affairs.

(3) The holding of joint meetings at central points in each area, composed of delegates from each association, for the purpose of discussing the general conditions existing all over the districts covered; of taking up questions, or obtaining benefits, which are beyond the scope of the associations, and for

(4) The appointment of one or more representatives for each area, to a seat on the Pharmaceutical Council, the latter being enlarged, if necessary, to allow for the extra representatives.

Some such scheme as this would ensure: (1) the elimination of much trade jealousy and distrust; (2) adequate representation for, and discussion and amelioration of the conditions obtaining in each and every district under the jurisdiction of the Council; (3) thorough organisations of the (at present) scattered forces of a powerful body; (4) effective aggression in, or defence of, the interests of the craft.

Finally, let me urge the importance of immediate action in this matter. It is within the next few months that the fate of the craft will be sealed, and it is only by determined action on the part of the Council that equitable treatment can be obtained from the Insurance Commissioners.

To make such action possible the Council must have the whole weight of the profession behind it, a thing which, to my mind, can only be obtained by the immediate adoption of some such scheme as the one outlined above.

Yours faithfully,

A. L. F. (17/27.)

[We question if the Pharmaceutical Society has at present the power to elect members of Council on a territorial basis; but so far as the National Insurance Act is concerned, the Council resolved at the last meeting to appoint a committee representing all interests, and our correspondent's suggestions might be adapted.—EDITOR *C. & D.*]

Hospital Formulæ: Uniformity Wanted.

SIR,—I observe that "Xrayser II." thinks that the new *C. & D. Diary* is one of the best Christmas presents you have ever offered to the trade. On the whole I agree with him, for I question if you have ever produced any piece of work of more widespread interest and usefulness than the synopsis of provincial hospital Pharmacopœia formulæ. One can always rely upon the *Diary* publishing one or more articles containing a large amount of new information, written or compiled by practical pharmacists, and, of course, presented free to all its subscribers. The perennial expectation has, as hitherto, not been disappointed.

Now that the information obtained from these Pharmacopœias is before us we can see at a glance how many difficult prescription-problems it will help us to solve through the accumulation of facts which not one subscriber could procure a knowledge of himself, not even regarding one formula, without a considerable expenditure of time and labour, while here you give us the collated facts regarding 3,000 formulæ more or less in a most convenient and accessible form. In looking through the formulæ, what strikes me most forcibly is the immense number of possible combinations of even the simplest forms. Here are a few examples taken almost at random. Potas. chlor. gargle is included by eighteen hospitals, and no fewer than twelve combinations are employed; lin. A.B.C. (under various names) figures in ten Pharmacopœias, and it may be made up in six different ways. The variations are quite as pronounced with the lotions; twenty-one hospitals require eleven ways of making boric lotion, thirteen have nine ways of making carbolic lotion, eleven hospitals have eleven different ways of making a lotion of perchloride of mercury, twenty require seventeen different formulæ for lead-and-opium lotion, twenty-one make red lotion in sixteen different ways, and thirteen have no fewer than twelve methods of making calamine lotion. The same criticism applies to the mixtures. Fourteen different formulæ for mist. alb. are required to satisfy fifteen hospitals, thirteen mist. bismuthi, eleven mist. copaiabæ, eight mist. diuretic., twelve mist. fer. et quin. cit., sixteen mist. salinæ, and seventeen mist. sodæ salicyl. are required for exactly the same number of hospitals in each case. Similarly with the pills and ointments; six hospitals have formulæ for pil. hydrarg. et rhei all different, seven have ung. flav., seven ung. sulph. co., and four ung. hyd. nit. dil., all different formulæ. Numerous other examples might be given, but these will serve.

While I was prepared for a certain degree of variety, I was not prepared to find sixteen different ways for making red lotion or fourteen for white mixture. I am not criticising one form or another, or saying which is right and which wrong; doubtless every Pharmacopœia can defend its own formulæ. Nevertheless, I think that such a state of affairs is far from satisfactory, and that it could be, and ought to be, remedied. Further, the same want of uniformity is seen in other directions. The colour, red, might be expected to be reserved exclusively for "red lotion," but some hospitals use the red colour for boric lotion, others for carbolic lotion, and others again for perchloride-of-mercury lotion. The last-named lotion is coloured blue by the majority of hospitals, and one hospital makes its carbolic lotion green. Picric lotion is, of course, yellow, but one hospital makes biniodide-of-mercury lotion yellow, and another makes it orange. Perhaps these are small points, but their significance will be appreciated by a nurse who has been trained to one set of colours and is transferred to another hospital where the rule is different. Surely there might be room for uniformity in this small detail.

"Xrayser II." speaks as if this were only the beginning of further work in the same direction; but it is to be hoped that before many more *Diaries* are published there will have been made an attempt to unify these formulæ, and thus get rid of the numerous variations occurring all over the country by the production of one book that will serve the needs of all. The present appears to be a specially auspicious time to inaugurate a movement for uniformity. It would tend to economy all round, economy of time to prescriber and dispenser, and of money to the pharmacist and the purchaser, if a universal series of formulæ could be prepared for all prescriptions used in common—and there are many hundreds that come under that category—in a book which might have the sanction of representative medical men, even if it were not issued by authority. At present there is no publication of this kind in existence in this country, and the sooner someone takes up the idea the better will it be for all concerned in the working of the medical-benefits section of the Insurance Act. If the issue of this immense mass of material in the new *Diary* is of assistance in this work it will not have been published in vain.

I am, etc.,

PHARMACIST. (18/24.)

"John Strange Winter, Ltd."

Mr. Arthur Stannard informs us that it is *not* the fact that Mrs. Stannard began her studies of hair and skin culture during a period of convalescence, or that illness had anything whatever to do with either the inception or the placing on sale of her toilet specialities. Certainly these assumptions have been made by kindly critics over and over again—more's the pity—but they are wide of the truth. The simple facts are—as she tells in all her handbooks—that brain-fever robbed her of a glorious head of hair at twenty-six; that many years later, when she entered her forties (after having used hair-restorers galore meantime), she found herself becoming bald, and took to a wig. Then, in a desperate desire to avert baldness, she thought out her hair-food (on the same principle as she had long before thought out Lakshmi and various skin-foods—by experimenting until she got what she wanted), and happily succeeded in growing for herself a magnificent head of hair. She placed the hair-food on sale, not on anyone's advice, but simply because so many people wanted it and she could not afford to supply it gratis to all and sundry, and having herself escaped from the tyranny of a wig she "felt it almost a duty to help others to do likewise." Also she hoped to make income from it, exactly as she aimed to do from writing. She was no "amateur" either in art or trade, though she loved whatever work she elected to undertake. . . . May I add that her latest business wish was that her company's work should be maintained as exactly as possible as though she was still with us, and on the lines she unswervingly followed (with perhaps a slight change of name to that of the subsidiary Australian company, "John Strange Winter, Ltd.")? The last person outside her family she conversed with, some five hours before she passed away, was her valued chemist and chief of staff, to whom she left her precious volume of "Pharmaceutical Formulæ" and the many other text-books she had treasured and studied.

Subscribers' Symposium.

For questions, answers, incidents, and interchange of opinions among "C. & D." readers.

Photographic Associations.

Mr. G. B. Savage, Ph.C., Brighton, writes: "I should be glad if you would ask through your always useful journal if some subscriber interested in a camera club, in the capacity of hon. secretary or hon. treasurer, would give me some information as to how to run a camera club successfully? I am interested in the 'rejuvenation' of a local club, and am most anxious to make the club a success now that we have good rooms, centrally situated."

Appreciations.

"Many thanks for *Diary*, 'The Pharmacists' Bible.' I get more information out of the *C. & D.* (as a commercial) than from all other means at my command. Wishing you a Happy and Prosperous New Year, and many of them."—(16/55.)

"The *Diary* safely to hand. It is a splendid volume. It is a marvel to me how you keep up the freshness, though of necessity the *same kind* of information must be repeated year by year, yet each of the thirty or more volumes I have had has an interest of its own, as I find that each one has some special and distinctive feature, and it is this that gives the freshness and the interest to each volume."—*Wm. Bousfield*.

Then the Chemist Laughed.

The man who manipulated the drugs was in high glee. Literally, he danced for joy, and his face was contorted with mirth.

"What—what's the matter?" gasped the assistant dispenser. The noise of the bottles dancing on the shelves had called him hastily in. "Have you taken something, or—"

"No," gurgled the chemist. "Oh, dear, no."

"Then what's—"

"You remember last winter," explained the chemist, calming down somewhat, "when our water-pipes were frozen?"

"Yes; but how—"

"Well"—and the chemist jumped for joy once more—"the plumber who came in to put things right has just been in again—to have a prescription made up. My turn now." *J. A. E. (234/71).*

The Woman Sarcastic.

Everybody encounters a streak of ill-luck now and then, even the chemist. The other evening, when the assistant was off duty, a lady insisted on waiting for a prescription. She told this one that she was in no hurry. As customers kept dropping in, her mixture took some time to dispense. She really did not mind, but the chemist did. Following two inquiries for proprietary articles which he did not stock, a lady demanded a douche-can and accessories. Of the half-dozen lengths of rubber tubing every one was in too brittle a condition to sell. Next a man inquired for finger-stalls. After inspecting an excellent variety, he murmured that the sort he liked wasn't on view, and took his departure. "You must imagine this is a wretchedly appointed pharmacy?" he felt constrained to say to the waiting customer. "Oh, no, I don't think so in the least," she replied. "You have probably been endeavouring to propitiate a succession of my last dozen servants' blood-relations."—*Chemicus (8/20).*

Legal Queries.

Consult the Legal Advice Section of "The Chemists' and Druggists' *Diary*," 1911, p. 435, before writing about your difficulty.

Anxious (Gibraltar) (18/27) asks what is an apothecary: his rights and privileges? [The reply is given in the *C. & D. Diary*, p. 437 and p. 446.]

Dental Chemist (52/21).—We have little doubt that the use by a registered chemist and druggist of the title "Dental Chemist" is as lawful as the title "Veterinary Chemist" has been proved to be, but in the latter case the chemist confined himself to compounding and selling veterinary medicines, and in no way practised as a veterinary surgeon. If, therefore, "Dental Chemist" means a chemist who practises as a dentist, and not simply a chemist who compounds and sells dental preparations, the case might be different.

G. B. (17/17) submits the following questions, to which we attach replies: (1) If I have a lung-mixture containing morphia and sold unstamped and label it "Poison" without mentioning that the mixture contained morphia, would that do? [Yes.] (2) Must it be labelled "Morphia" and "Poison"? [No. See *C. & D. Diary*, 1912, p. 438, "Labeling."] (3) If I stamped the bottle, would it (in reference to the above question) make any difference? [No. See "Patent Medicines" in *Diary*, p. 439.]

L. R. (16/66) asks if the seller's name and address type-written on a label will be legal when used on bottles or other enclosure containing mineral acids, etc., subject to the provisions of the Poisons and Pharmacy Act, 1908, Section 5. [Yes, perfectly legal. There is no stipulation in the Act that the label should be printed. In the regulations issued on March 22 last it is stated that the additional words "Not to be taken" shall be distinctly "printed" on the label, but, as we have previously stated on several occasions, the regulations do not overrule the Act. The words or label may be either printed or written by hand or with a typewriting machine.]

Village Chemist (11/39) states that in his village a doctor has an open pharmacy with his name painted above the door. The shop is kept by a qualified assistant, whose name is not shown. When the Insurance Act comes into force,

if the doctor is an insurance doctor, can he keep an open shop; and if he does not accept service under the Act, can he still keep an open shop and call it a pharmacy if he is not a qualified chemist? [The Insurance Act does not abrogate or repeal any of the provisions of the Pharmacy Acts, 1868-1908. By Section 16 of the 1868 Act registered medical practitioners are exempt from the provisions of the first fifteen sections, which include penalties to be inflicted upon those who keep open shop for the sale and dispensing of poisons, use of titles, etc. If a doctor visits patients under the Insurance Act he may still keep open shop, but the question as to whether he may supply drugs or medicines to insured persons will be subject to the regulations made by the Insurance Commissioners under Section 15 (5) of the Act.]

Miscellaneous Inquiries.

We do not as a rule repeat information given in this section during the past twelve months. When references are given to past issues, these should be consulted. Back numbers for the past five years can generally be obtained from our office at the published prices. We do not undertake to analyse and report upon proprietary articles.

W. S. S. (10/68) writes: "I notice that in your *Diary* you use the nominative case for days of the week—e.g., 'Dies Jovis.' I have often seen the ablative used 'Die Jovis' in accordance with the rule 'Time when, etc.' Which is correct?" [The nominative is correct in this case. The ablative would be used, say, at the head of a letter to imply "On . . . day I am writing this," or on official documents to signify, e.g., "Proceedings of Committee on . . . day." But in the *Diary* the expression is used solely as a heading—a complete sentence; and a sentence must have a nominative. In this instance there is no other implied nominative, and so the form printed is correct.]

Monocot (11/45).—MANCHESTER SCHOLARSHIP.—This scholarship is open to persons who have been engaged for not less than three years in the pharmacy of a registered chemist and druggist or pharmaceutical chemist in Lancashire or the High Peak Parliamentary Division of Derbyshire, and who is a student-associate of the Pharmaceutical Society. He must also be not less than nineteen or more than twenty-one years of age on the day of the examination, which is in June. The subjects of the examination are Latin, French, or German, chemistry, pharmacy, and botany.

J. C. (Lisbon) (230/65).—(1) NAIL-CUTICLE LIQUID.—The following is applied to the nails with a piece of flannel or soft leather:

Tartaric acid	...	...	...	5i.
Tincture of myrrh	...	...	...	5j.
Eau de Cologne	...	...	...	5iii.
Distilled water	...	...	...	5iiss.

Mix.

Citric, acetic, dilute sulphuric, or oxalic acid may be employed in place of the tartaric acid. Occasionally the following ointment should be applied at bedtime, gloves being worn all night:

White vaseline	...	...	...	4 oz.
Powdered Castile soap	...	...	...	½ oz.
Bergamot oil	...	...	...	15m

(2) HAIR-DRESSING.—We think you will find the crystal brillantime according to the formula in the *C. & D.*, August 19, index folio 327, suitable in the circumstances you mention.

A. W. S. (2/45).—POISONOUS PRINCIPLES OF YEW.—The leaves and berries of the common yew (*Taxus baccata*) possess powerful toxic properties. Marmé, in 1876, was the first to isolate a definite alkaloid, which he named taxine. Since then the subject has been studied by Hilger and Brande ("Berichte," 1890) and Thorpe and Stubbs ("Proceedings of the Chemical Society," 1902). Several processes have been published for isolating taxine, that used by Thorpe and Stubbs being as follows: Digest the powdered air-dried leaves with 1 per cent. sulphuric acid for five or six days. Strain and press, render alkaline, and extract with ether. The ether extract contains the taxine, which is purified in the usual manner. Hilger and Brande assigned to taxine the formula $C_{25}H_{35}O_{10}N$. Some years ago (*C. & D.*, 1877, p. 424) Professor Redwood read a paper on the subject at an evening meeting of the Pharmaceutical Society, in which the poisonous properties of the leaves were well established by direct experiments. Yew is sometimes employed as an abortifacient. It has been asserted that the male plant of the yew alone is poisonous, while the female plant is harmless to cattle.

N. R. (248/66).—ANILINE DYES.—The methods of applying and mordanting these dyes are very diverse, and in a measure

depend upon the chemical constitution of the individual colouring-matters. The following are a few examples: *Nitro colouring-matters* are dyed from a bath slightly acidulated with sulphuric acid, but are not fast to light. *Azoxy colouring-matters* are used in the same manner. *Nitroso colouring-matters*, such as fast green and dark green, require in the case of cotton a mordanting with iron and dyeing in a neutral bath. Wool is mordanted with ferrous sulphate and oxalic acid. Naphthol-green β , belonging to the same class, is only applicable to animal fibres, wool being given a single bath to which ferrous sulphate and sulphuric acid are added. *Azo colouring-matters*.—As an example of these, it may be mentioned that chrysoidine and Bismark brown require, in the case of cotton, a mordant of tannic acid and tartar emetic. *Oxy-azo colours* are especially applicable to wool and silk dyed in an acid-bath. *Triphenylamine colours*, of which the most important are basic, are used on wool at the boiling-point; some require the addition of acid, and in the case of cotton a tannic-acid and tartar-emetic mordant is needed.

Vimbo (61/6).—If the cough-mixture of which you send us the formula is given in ounce doses every four hours it will induce perspiration in some cases, and it is in these which you have to avoid giving trouble. Liq. ammon. acet., spt. æther. nit., and ammon. carb. are the ingredients chiefly responsible for this effect; they are good for a cold, but of little value for ordinary coughs, what value they have in the latter respect being due to the effect which you desire to avoid. There are many prescriptions in "Pharmaceutical Formulas" which have not this objection—e.g.:

Cough-mixture, P.F. 216.

Spt. chloroformi	...	...	3iiss.
Vin. ipecacuanhæ	...	...	3v.
Syr. papaveris	...	...	3x.
Oxymel. scillæ	...	...	3x.
Syr. simplicis	...	...	3xviiss.
Aquam ad	...	...	Qiv.—M.

Dose: A dessertspoonful thrice daily, and a dose at bedtime.

There are scores more in the book to select from. Fancy names should be avoided in the case of known, admitted, and approved remedies, as they may be construed into a claim to proprietary right, which excludes from the exemption. If the word is one which any person may use, you cannot be wrong as long as the "P.F." number is prominent—e.g., "Soothing cough-mixture, P.F. 216."

Arias (Barcelona) (274/34).—(1) **FILTERING VARNISH**.—In this country varnishes are filtered by running them while hot through coarse linen or fine tulle. Clarification by storing and decanting is, however, mainly relied upon, the residue only being filtered. Mechanical filtration is effected by means of Schweizer's filter, which consists of three drums separated by woven cloth, the varnish being pumped through the series by a pressure-pump, the pressure being increased as the flow diminishes. (2) **SHELLAC VARNISHES** are made either by the cold or hot process. In the former, which is preferable if time is not an object, the shellac and other ingredients, with the solvent, are placed in a cask together, and each day the position of the cask is reversed until complete solution is effected. (3) **BLEACHING SHELLAC**.—The process is as follows: First a solution is made in a large copper of 4 kilos. of sodium carbonate in 50 litres of water and brought to the boiling-point. Next 10 kilos. of shellac is added, stirred till dissolved, and the solution run out into a vessel of 500-litres capacity. Separately a bleaching liquid is made by extracting 10 kilos. of chlorinated lime with 200 litres of water and precipitating the calcium salts with sodium carbonate. The hot solution of shellac is added to the bleaching liquid in portions, an interval of five minutes being allowed between the additions. When the whole of the shellac solution has been added the mixture is allowed to stand for twenty-four hours. The next step is to run off the clear liquid into a larger vessel, make it warm by adding boiling water, and precipitate the shellac by adding dilute hydrochloric acid. The resin is collected, washed, and dried, and then cast into sticks. It must be preserved under water. (4) **CALCIUM CARBONATE** as a by-product can be employed as a source of carbon dioxide for aerated waters or for white-washing or building purposes. (5) **RAT-POISON**.—The formula given in the *C. & D.*, March 4, index folio 338, is good, and meets your objections against phosphorus, arsenic, and virus. (6) **GLASS-MAKING**.—Soda is used in glass-making, chiefly in the form of carbonate or sulphate. (7) **RESIN** is coloured by aniline dyes in cases where it is desired to retain its transparency. The dyes are dissolved in spirit before being added to the melted resin.

S. C. S. (9/56) asks: "What is the cause of the black spots on sycamore-leaves?" [The spots are the spores of a fungus, *Rhytisma acerinum*.]

F. H. (258/35).—**PIG-MEAL**.—The bone-forming qualities of pig-meal can be improved by the addition of calcium phosphate in the proportion of 1 oz. daily. The calcium phosphate should be intimately mixed with the meal.

S. M. L. (259/12).—(1) **RESTORING OIL-PAINTINGS**.—The method was described in the *C. & D.*, June 17, index folio 900. A book on the subject is Gunn's "Print-restoration and Picture-cleaning" (L. U. Gill, 6s. 6d.). (2) **WORMS ON GOLF-LAWNS**.—The details of the method of destroying worms on golf-lawns were given in the *C. & D.*, August 20, 1910, index folio 329.

Anargyl (Turin) (8/19).—**INSOLUBLE GELATIN**.—There are several methods of rendering gelatin insoluble, the choice depending upon the use to which the product is to be put. Potassium bichromate is commonly employed, the proportion being 1 oz. to 7 lb. of gelatin or glue; ammonium bichromate is stated to be preferable to the potassium salt, as being more easily reduced by light, exposure to light being necessary in both cases. The other chemicals employed are chrome alum (2 per cent.), tannin, basic chromium sulphate, and formaldehyde. In the case of the last-named substance the gelatin is immersed in a solution of formaldehyde.

Hypo (7/55).—**ENAMELLED LETTERS** are best fixed on shop-windows by means of a cement of dry white-lead or red-lead made into a paste with varnish or gold size.

C. H. (40/39).—The only "sugar soap" with which we are acquainted is the cheap transparent soap.

Junket (10/74).—**RENNETS**, or calves' stomachs preserved in salt, are an article of commerce. As stated in the *C. & D.*, December 9, index folio 867, either the whole rennet is employed or the scrapings of the inner surface. Your other questions about the age of the calf, the effect of feeding the animal on grass, and the practice of primitive shepherds in Italy are beyond us.

J. M. G. (40/25).—**CONDENSED MILK AS INFANTS' FOOD**.—This was dealt with in detail in a report by Dr. F. J. H. Coutts to the Local Government Board, of which an abstract was published in the *C. & D.*, September 16, index folio 448.

O. O. C. (256/8).—**SAUSAGE-SKIN COLOURING**.—The "OOC scarlet" referred to in "Pharmaceutical Formulas" is an aniline dye, which you can doubtless obtain under that or some other name from Williams Bros., Hounslow.

P. W. (257/36).—**BUST-DEVELOPER**.—A tragacanth skin-cream is employed for the purpose of developing the figure, the massage probably contributing the most to attaining the desired end.

B. E. W. (259/47).—(1) **BOILED LINSEED OIL** is prepared by heating linseed oil alone, with a drying agent such as lead and manganese salts, or by injecting air into the hot oil. The proportion of driers employed is small, about 0.25 to 0.75 per cent. of the weight of the oil. The modern method is to dissolve the manganese oleate, resinates, or linoleate in some of the linseed oil and add it to the bulk of the linseed oil at a temperature of about 100°C. Preference is, however, often expressed for the old "kettle-boiled" oil. (2) **PHOTOGRAPHIC DEVELOPER**.—The reaction between metol and quinol results in a compound which is less soluble than either of its components. This accounts for your difficulty, especially in the presence of a large amount of other salts in the developer. The method of making a concentrated solution containing metol and quinol was explained in the *C. & D.*, August 19, index folio 328, and August 26, index folio 366.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," December 14, 1861.

Retrospective and Prospective.

Twelve months ago the subscribers to THE CHEMIST AND DRUGGIST were taken into the editor's confidence, and informed of the general arrangements that had been made for the volume which the present publication completes. The promises then made to the reader have been faithfully carried out, and the editor cannot help feeling rather proud of the work which has been performed under his superintendence during the year. A glance at the index issued with this number will suffice to convince the reader that the energy which has been thrown into the management of the journal has produced most important results. Besides a number of original leaders and essays, the monthly trade reports and notices of passing events, lists of patents, and letters from correspondents, the volume contains many articles which give it a lasting value as a work of reference. To these articles we point with no small degree of satisfaction, as they are from the pens of gentlemen who rank high in the world of science and letters.

THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C. SATURDAY, DECEMBER 30, 1911

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

*May Time deal gently
with all in the Drug trade and
mow down all obstacles
so that the YEAR 1912
may be one of happiness and
prosperity to all.*



THE CHEMIST & DRUGGIST,
42, CANNON ST. LONDON, E.C.

DEC. 30, 1911

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON S.E. (Residential Suburb).—Good-class Business, Retail and Dispensing; returns £1,700 (about); gross profit 38 per cent.; attractive shop, double-fronted; terms, valuation of stock and fixtures.

2.—KENT (Suburban).—Good middle-class Business, situate in close proximity to busy Railway Station; returns between £950 and £1,000 per annum; net profit £259; books open to inspection; attractive shop, double-fronted; price, £50 and valuation of stock and fixtures.

3.—LONDON, S.E.—Middle-class Business, chiefly ready money; returns between £950 and £1,000 per annum; net profit £300; attractive shop, well fitted and stocked; price £775.

4.—LONDON, W. (few miles out).—Light Retail and Dispensing Business; returns £450; scope for large development; modern-fitted shop; comfortable residence; rent moderate; price £260, or near offer.

5.—LONDON, S.W.—Middle-class Business, Retail, Prescribing, and Photographic; returns last year £1,037; gross profit 45 per cent.; attractive shop, double fronted; well-assorted stock; good residence; price £650.

6.—LONDON, W.—General Retail, including Optical and Photographic; gross receipts average about £900 per annum; net profit £230; full investigation invited; price £550, about the value of stock and fixtures.

7.—KENT.—Established Business, Retail and Optical; position good; returns under manager £660; average net profit £220; commodious shop and premises; rent moderate; to effect a speedy transfer no reasonable offer will be refused.

8.—MIDLANDS.—Modern Pharmacy; position good; returns average £2,100 per annum; gross profit over £800; books open to inspection; terms, goodwill and fixtures £300; stock at a fair valuation; about £1,000 required to purchase.

9.—NORFOLK.—Unopposed Mixed Country, trade; established many years; returns average £928 per annum; net profit £230; rent £26 17s. yearly; held on lease; price £500, or near offer.

10.—YORKS.—Branch Business; established many years; returns under manager about £525 per annum; profits above the average of Retail trade; comfortable residence, garden; rent moderate; terms, valuation of stock and fixtures.

11.—SOUTH WALES.—Good-class Business, Retail and Dispensing; returns average £4,060 per annum; modern-fitted shop, situate in main thoroughfare; long lease; terms, value of stock and fixtures and sum for goodwill to be arranged equitably.

12.—EASTERN COUNTY.—Well-established Business; returns £728; net profit about £220; the shop is capitally situate in the centre of town; good house, garden; price £400.

13.—SUSSEX.—Unopposed Business; established 70 years; returns average £900 per annum, and the net income £320; large, well-appointed shop and residence, small garden; terms, goodwill £100, stock and fixtures at a fair valuation.

14.—BUXTON (near).—Mixed Business; very old-established; returns increase yearly, last year being £720; net profit £180; rent £20; price £225, which is less than value of stock and fixtures.

Particulars of any of the above will be furnished on application.

N.B. NO CHARGE TO PURCHASERS.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services.
ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

BRETT & CO.*Licensed Valuers,***73 LAUREL ROAD, LEICESTER.**

Telegrams, "Brett Leicester." Telephone 1934.

AGENCY.—We have always a large number of *Buyers* on our books, and we can frequently find a purchaser at once. We also have a *Private Register* for vendors who are in no hurry to sell, and who do not wish their businesses to be advertised.

STOCKTAKING SPECIALISTS to the Entire DRUG TRADE

1.—SOUTH SOMERSET.—Good-class Light Country Retail and Dispensing; moderate rent; situated in nice country town; returns about £1,200; illness sole cause of disposal; price about £1,000.

2.—DERBYSHIRE.—Light profitable working-class Retail; returns £960; price £500; low rental.

3.—LIVERPOOL.—Several Businesses from £60 to £1,000 in Liverpool and immediate district; please state wants.

4.—KENT (Coast).—Returns £650; net profit £220; price £500; any reasonable offer accepted.

5.—YORKSHIRE.—We have several good Businesses for Disposal requiring capital of £175 to £400 to purchase outright, and also Businesses requiring up to £1,000; bona-fide inquirers may have further particulars of the above on application.

6.—DORCHESTER (twenty miles from).—Good-class Light Country Retail; low rental; returns £800, at good profits; price £600; strongly recommended.

7.—LEICESTERSHIRE.—Light Retail in Colliery district; returns £560; price £250; rent £31.

8.—GLOUCESTERSHIRE.—Returns £1,250; good-class Retail and Dispensing; net profit £275; price £950.

9.—FIRST-CLASS Retail and Dispensing Business and Mineral Waters; returns £1,825; net profit £520; situate in well-known Inland Spa; 14,000 Prescriptions annually; splendid premises; could be greatly increased under up-to-date Store methods.

WE ARE

now booking Stocktakings and Valuations for January and February. Write for our most moderate terms, and leave the rest to us. We guarantee to please you. Our practical experience of 45 years stands behind all our work.

PARSON C. BAKER**174 VICTORIA ST., LONDON, S.W.***Recommended by—*MESSRS. BARRON, HARVEYS & CO.

Telephone:

MESSRS. MEGGESON & CO.

No. 27 Victoria.

MESSRS. BARCLAY & SON, LTD.

Invites correspondence and inquiries from anyone requiring Valuation of Stock, either for Sale, Probate, or Account.

Annual or periodical Valuations are made on specially arranged terms, and no interference is caused to current business.

Parson C. Baker's long practical experience in every branch of the trade, his present engagements therein, and his personal attention to all Valuations, combine to give him advantages which no other valuer in the trade possesses.

Advice is given to purchasers of Businesses and investigations made on most reasonable terms.

Vendors desiring to dispose of their Business without publicity are invited to send particulars and full instructions, which are most faithfully observed.

TOM TOM

Telegraphic Address.

THOS. TOMLINSON & SON, I

Chemists' Valuers and Expert Stocktakers.

Businesses transferred privately.

29 NEW CANNON STREET, MANCHESTER.**CHEMIST BUSINESSES FOR SALE.**

- (1) Devon: Returns, £700; Net Profits, £300; Price £600.
 (2) Worthing: Returns average, £1,100; Net Profits, £290; Price £825.
 (3) London: Returns, £1,000; Net Profits, £250; Price £400.
 (4) Chatham: Returns about £700; Net Profits, £220; Price £500 or near offer. Further particulars on application to "J.W.S.," Evans Sons Lescher & Webb, 60 Bartholomew Close, E.C.

MESSRS. BERDOE & FISH,*Chemists' Valuers and Transfer Agents,***35 JEWRY STREET, FENCHURCH STREET, CITY.**

TELEPHONE: 1809 CENTRAL.

Have the following Businesses for Disposal. (No charge to purchasers.)

1.—SOUTH MIDLANDS.—Good-class Retail and Prescribing Business, returning about £1,500, at excellent profits; good position; low rent; convenient house, large garden; well fitted and stocked; price £950; books properly kept.

2.—SURREY.—Good middle-class Retail Business, steadily increasing; present returns average £900; net profit £259 last year; central position; good residential district; price £700.

3.—EAST COAST.—Good-class Business, in small town; returns £728; net profit £220; scope for increase; large shop, fully stocked; owner retiring; price £460.

4.—NORFOLK.—Unopposed Mixed Country Retail Business, with scope for increase; returns £850; net profit £230; large house; stock and fixtures worth about £500; price £550, or offer.

5.—HAMPSHIRE.—Sound Cash Retail and Prescribing Business, practically under Junior; returns £500; net profit £150; plenty of scope; fine corner position; low rent; price £200.

6.—KENT.—Good-class Suburban Business; no Side-lines; returns over £950; net profit £245; books properly kept; own property; price £750, or £50 and valuation.

7.—LONDON, W. (few miles out).—Light Cash Suburban Business, in splendid position; growing district; returns £800, and increasing; attractive shop, well fitted and stocked; price £375, or valuation terms.

8.—YORKSHIRE (Inland Health Resort).—First-class Retail and Dispensing Business, in splendid position; returns £1,460; good profits; handsomely fitted and fully stocked; price £1,200.

9.—HERTFORDSHIRE.—Owner retiring; Light Cash Retail and Prescribing Business, returning about £750; net profit £258; modern-fitted shop, well stocked; price £575, simply valuation.

10.—MIDLANDS.—Good-class Country Retail Business, under management; returns £1,400; gross profits £560; scope for increase; handsome shop in best position; stock and fixtures worth £1,000; price £1,200, or offer; stock reduced to suit purchaser.

11.—WEST OF ENGLAND.—Light Retail, Dispensing, and Prescribing Business, under management and neglected; present returns £1,000, was doing £1,500, and can again; price £850, or valuation.

12.—SOUTH COAST.—Good-class Retail Business, steadily increasing; returns about £750, at good prices; could easily do £1,000 on Store lines; handsome shop, fully stocked; price £600, or near offer.

13.—LONDON, S.E.—Old-established Cash Retail and Prescribing Business, with Optics; returns £900; net profit £300; main-road position; excellent premises; price £725.

14.—LONDON, N.E.—Profitable Cash Retail and Prescribing Business; returns about £900, under manager; main-road position; well fitted and stocked; price £500; half can remain.

BUSINESSES WANTED.

We are in immediate want of genuine businesses in all parts, especially South and South-west of England, cash buyers waiting ready to invest up to £3,000. Strictest privacy guaranteed. Terms sent on application. No sale, no charge.

VALUATIONS FOR STOCKTAKING.

Have you read page 150 in "The C. & D. Diary, 1912"? If not, please do so now, and then send for our pamphlet, which clearly illustrates the many advantages of stocktaking, whether you are in a small or large way of business.

We are now booking stocktakings for 1912, and invite applications for our new and revised terms, 42 years' practical experience

BUSINESSES FOR DISPOSAL

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

LETTERS in reply to Advertisements may be addressed to this Office, and will be forwarded to the Advertiser for an additional charge of 6d.

Trade circulars, samples, and printed matter can in no case be forwarded.

BERDEEN.—Chemist's Business (small) for immediate Disposal, situated in one of the main thoroughfares and within a growing residential district; practically no opposition; stock fresh, and nearly all mahogany fittings; price under £200; low rental; returns increasing, and are principally Dispensing; reasons for disposal. Apply, 70/18, Office of this Paper.

BIRMINGHAM.—Old-established Business in unique position; high-class Cash Business; net profits certified by chartered accountant over £600 per annum; price, two years' purchase and stock and fixtures at valuation; death of proprietor cause of sale. Apply, Redfern, Hunt & Co., Solicitors, 23 Colmore Row, Birmingham.

BRISTOL.—Owing to death of proprietor, Chemist's Business for Disposal; shop well fitted and stocked; electric light; low rental; main road; immediate possession. Kirby, 348 Gloucester Road, Bristol.

BRISTOL (Central).—Owing to death of proprietor, well stocked and fitted Chemist's Business, doing £1,100 turnover yearly; steadily improving; well-kept books; with or without stock of Optical goods. Kirby, Ashley Road, Bristol.

CARDIFF.—Drug Stores for immediate Disposal; takings £8 weekly, half profits; has done £10; much neglected, due to illness; fixtures, etc., cost £75 recently; stock about £100; rent 15s.; owner, going abroad, will sell as a going concern, or stock and fixtures separately at given-away price; what offers? Apply, "Sacrifice" (71/33), Office of this Paper.

DERBYSHIRE.—Advertiser, who has bought a large business, wishes to Dispose of his present one for cash; it is situated in the centre of a large mining district, and has not been neglected in any way; good house, garden, warehouses, &c.; only one other Chemist in the town; present rent £35; returns about £1,100; price required, fair valuation; it is ready for a purchaser to step into and continue with no undue expense, and has not been advertised in any way before. Replies to 70/19, Office of this Paper.

DUBLIN (Suburb).—Medical Hall for immediate Disposal, in good-class residential locality; Family, Retail, and Dispensing Business; steadily growing; plenty of scope for increase; very compact and well-fitted Pharmacy, fully stocked; dwelling attached; rent low; excellent reason for sale; fullest investigation invited to genuine buyer. Apply, "Proprietor," 2 Kenilworth Buildings, Rathgar.

EASTERN COUNTIES.—A good little Family and Dispensing Business for Sale immediately; health failure reason for sale; price fixed on buyer's own valuation; populous district; splendid opportunity for young, pushing man; house can be let off profitably; must be sold at once. All particulars on application, 72/2, Office of this Paper.

HERTFORDSHIRE.—Modern, handsomely fitted Pharmacy, in main thoroughfare of market town; good position; excellent residential accommodation; business, under management, has suffered from neglect, but should afford profitable scope for capable energetic worker; price, including stock, £750; terms of payment could be arranged. "Cole" (70/39), Office of this Paper.

KENT.—Good-class Retail and Dispensing Business, selling solely through illness; present turnover about £750, fully half profit; very few Patents; excellent position in good market town; convenient premises; low rent; price £700, or small premium and valuation; most desirable investment. Apply, Berdoo & Fish, Valuers, 35 Jewry Street, Fenchurch Street, E.C.

LANCASHIRE.—Good Family Mixed Business in main thoroughfare and well-populated district; Wine Licence; good house; present owner going abroad; quick sale £350. Apply, "Cable," c/o Messrs. Evans Sons Lescher & Webb, Ltd., Liverpool.

LIVERPOOL.—In thickly populated, good-class district, Light Retail Business, with profitable Side-line, which more than pays every working expense; shop is well fitted in latest style; good roomy dwelling-house; rent very reasonable; returns over £650; good opportunity to develop Photo trade. 72/3, Office of this Paper.

PEAK OF DERBYSHIRE.—Splendid chance for young man; takings £650; profits £180; established 80 years; being otherwise engaged, must sell; price £200, a sacrifice. 71/16, Office of this Paper.

RAMSGATE.—Unopposed Branch Business; main road; double-fronted, nicely fitted; electric light; house contains 9 rooms, very convenient, garden, etc.; opened 15 months; takings averaged £6 per week under the worst possible management; fittings value £125, stock £50; will dispose of for £50 down and 75 weekly £1 instalments, or £100 cash, or any reasonable arrangement; exceptional lease; rent £30; no useless inquiries; come and view. Lloyds, Chemists, Margate.

STREATHAM, S.W.—Handsomely fitted, old-established Business; neglected and closed through mismanagement; Dental, Optical, and Dispensing; fine shop and house; every modern convenience, electric light, 8 rooms, kitchen and bathroom, back and side entrance; stands in position to do a large trade. 76 Upper Tulse Hill, or 5 Maplestead Road (adjoining shop).

WEST END.—Valuation, about £250, will purchase fine old Business, formerly doing £1,500, but very little now owing to high prices; long lease; good house; young, energetic man would do £1,000 first year; excellent position, adjoining best shopping centre in London; same hands 55 years. Apply, Berdoo & Fish, Valuers, 35 Jewry Street, City.

FOR Sale. Business in thickly populated neighbourhood; has done £10 weekly, and having been neglected can be bought cheap; it would suit beginner, either with or without qualification; it will be sold cheap owing to ill-health. Apply, Leo, c/o 40 Monks Road, Lincoln.

SALES BY AUCTION.

ON BEHALF OF THE FIRE INSURANCE COMPANIES.

SALVAGE recovered from the late fire at MESSRS. BARCLAY & SONS, LTD., WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN, Farringdon Street, E.C. (a large portion of which is only slightly damaged by smoke and water), including 1,000 BOTTLES EAU DE COLOGNE and other Perfumes, TWO TONS FANCY SOAPS, Coal-tar, Milk, and Sulphur Soaps; Camp and other Coffee; Allen & Hanburys', Schweitzer's, and other Cocoa; LARGE STOCK OF PROPRIETARY ARTICLES, Owbridge's Lung Tonic, Angier's Emulsion, Warner's Safe Cure, Odol, Clarke's and other Blood-mixtures, Epsom Salts, Izal and other Powders, Pills, Ointments, and other Patent Medicines; 1,000 GALLONS DISINFECTANTS, 1,000 tins, bottles and packets Carbolic Acid and Chloride of Lime; INFANTS' FOODS, Beef and Malt Wine, Malt Extract, Cocoa Wine, Stephen's Inks, Gums, Colours, Dyes, Lime-juice and other Cordials, Malt Foods and Wines, Winearnis, Ridge's Foods, Cod-liver Oil; ABOUT ONE TON OF LIQUORICE, 5 cwt. Citrate of Magnesia, Toilet Rolls, Hair-restorers, Hair-dyes, Stains, Cooper's Sheep-dip, Thorley's Food, Scrub's Ammonia, Insect-powders, &c., &c., which will be sold by Auction by

MESSRS. TOPLIS & HARDING, at the Sale Rooms, 62A Aldersgate Street London, E.C., on Wednesday, January 3, 1912, at 1 o'clock precisely.

On view day prior. Catalogues may be had at the Sale Rooms and of the Auctioneers, 66 Cannon Street, E.C.

AGENCIES.

GENTLEMAN who has had several years' experience in Foreign, Indian, and Colonial Markets, and for the last six years has represented Manufacturers on the London Market, is open to accept an additional Agency (with or without depot) that would interest Chemists; has valuable connection with Export Merchants, Patent houses, Warehousemen, and large Stores. Write, "A. Z.", (74/27), Office of this Paper.

BUSINESSES WANTED.

ADVERTISER requires good-class Dispensing Business (Coast or Country preferred) having minimum turnover £1,000; scope for "Offices, etc.; must bear strictest investigation; would prefer act as Manager or Assistant at nominal salary short time if favourable before taking over; willing deposit guarantee of good faith; confidence respected. "Genuine," P.O., Radcliffe, Manchester.

DRUG-STORE wanted in busy thoroughfare (thickly populated locality); must be suitable for good Prescriber; neglected business not objected to; state particulars, lowest price, in confidence; London preferred. Address, M. Blanchard, 47 Hungerford Road, N.

PARTNERSHIPS.

YOUNG and energetic Pharmacist, of good address and excellent experience, wishes a Partnership in good-class business, or would purchase on easy terms, part down, remainder by instalments as agreed; first-class recommendations and references available; City, seaside, or country town; Wholesale position also considered. Address, "Ross" (70/20), Office of this Paper.

TO LET.

LONDON, W.—Rooms to Let over Chemist's Shop, where there is a splendid opening for Dentistry or a Doctor, in busy market thoroughfare; best position in road; rent 15s. per week (4 rooms). 75/27, Office of this Paper.

CHEMIST, good opening for; Physician next door; rent £60 per annum; populous locality; dwellings to accommodate 1,000 to 1,500 persons in course of erection adjoining the premises. Apply, Mr. Hosegood, 129 Cheapside, E.C.

TO Let, first-class Business Premises, 6 Berwyn Street, Llan-gollen; living accommodation can be arranged if required; excellent showrooms, &c., and good shop front; business established 1848; can be adapted to any business. Apply to M. H. Roberts, Avondale, Sandringham Avenue, Rhyl.

SITUATIONS OPEN

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 2d.

RESULTS
OF ADVERTISING IN THIS SUPPLEMENT
LAST WEEK DEC 23 1911
REPLIES

MANAGING ASSISTANT	15
JUNIOR OR IMPROVER	6
QUAL. MANAGER	4
JUNIOR	4

This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of Advertisers who use a number or name de plume.

TO SAVE TROUBLE.

MANY correspondents answering advertisements in this Supplement enclose remittances to cover the cost of forwarding their letters to advertisers who prefer to be addressed o/o this Office. The Publisher desires to make it clear that this is quite superfluous and perhaps this reminder will obviate the necessity of the frequent return by him of such remittances.

ANSWER IN TERMS OF THE ADVERTISEMENT AND

REMEMBER you are one of possibly hundreds applying for the same position. Put your case before the advertiser so that he may be able to form a MENTAL PICTURE of your suitability.

BRIEF BUT CLEAR—millions of applications are consigned to the waste-paper basket UNCONSIDERED, because the reader cannot form this picture from the inadequacy of the materials set before him.

RETAIL.

BRIGHTON.—Smart Assistant required for January 15, age about 24, used to high-class Retail and Dispensing. Apply, stating age, height, salary required, and if possible enclosing photo, to Franklin, 86 King's Road, Brighton.

BRISTOL.—Junior, about 21, for keeping-up Stock and assisting at Counter; hours of business 8.30 till 8.30, 9.30 Saturdays; alternate Sunday evenings; one evening a week at 5 p.m. Usual particulars (with photo if convenient) to Presley, Chemist, Tram Centre, Bristol.

BRISTOL.—Wanted, by January 12, qualified Manager for Branch; single; age 25-35; good-class Dispensing, Light Retail, Photographic; indoors; comfortable home; energetic. Full particulars of experience, age, height, salary required, and photo, to Blissett, 10 Victoria Street, Clifton, Bristol.

CRADLEY HEATH.—Manager at once; qualified; working-class district; salary 45s. weekly (outdoors). Apply, with full particulars, W. J. Gardam, M.P.S., 10 High Street, Halesowen. All communications not answered in 3 days respectfully declined.

CROWBOROUGH.—Capable Assistant for good-class Dispensing and Retail business; knowledge Photography preferred. Apply, with full particulars, stating age, height, and salary (indoors), with photo, to G. H. F. Dier, M.P.S., Pharmacist, Crowborough.

EAST COAST.—Wanted at once, qualified Assistant; must be good Prescriber and able to take charge; permanency and progressive salary offered to a steady, reliable man. Full particulars and salary expected (outdoors) to 72/24, Office of this Paper.

LEICESTER Infirmary.—Wanted, a Male Assistant Dispenser, not over 30; Minor qualification; salary to commence £100, with luncheon. Apply, not later than January 2, 1912, with copies of three recent testimonials, to the House Governor and Secretary, Leicester Infirmary.

LONDON W.—J. R. Faulkner & Co., 173 Ladbroke Grove, have a vacancy for a Junior; indoors; good-class Retail, Dispensing, and Photographic business. Apply, with usual particulars, salary required, etc.

LONDON, S.W.—Qualified Assistant (indoors), age about 24, for a good Dispensing and Retail business. Apply, with particulars, salary, etc., with photo, to Foster Blades, 10 Gloucester Road, South Kensington, S.W.

LONDON, N.E.—Junior Assistant (outdoors). State age, height, experience, and salary expected, to Matthews & Son, Chemists, 722 High Road, Leytonstone, N.E.

LONDON, S.E.—Assistant wanted, age about 22 (outdoors), for quick Cash Retail. Apply, 509 New Cross Road.

LONDON, N.E.—Wanted immediately, capable, qualified Assistant, married, age between 25 and 30, to live on the premises; permanency. Apply, with full particulars, to S. Marshall & Co., Ltd., Chemists, 78 High Street, Kingsland, N.E.

LONDON, S.W.—Wanted, qualified Senior, quick Dispenser and good Counterman, used to highest-class business; man with Continental experience preferred; indoors. Apply, in person or by letter, with photograph, giving usual particulars and stating salary required, to C. S. White, Ph.C., 45 Buckingham Palace Road, S.W.

LONDON, S.W.—Wanted at once, unqualified Junior Assistant for Stock and Counter in Cash business; outdoors; hours of business 8.30 till 9, Wednesdays 1.30; no Sunday duty. Apply, stating age, height, salary required, and last two references, to "Statim" (70/21), Office of this Paper.

LONDON, N.—Part-time Junior wanted, about 22; indoors; 3 afternoons weekly for study, or as arranged; accustomed to good-class Retail and Dispensing preferred. State full particulars in first letter to "Ammonal" (72/11), Office of this Paper.

LONDON, W.C.—Wanted, young qualified Junior; good experience and address. Apply, Heppell & Co., 38 Chandos Street, Charing Cross, W.C.

LONDON, S.W. Suburb.—Wanted, early in January, qualified Assistant, 25 to 30, with good all-round experience; permanency to suitable man; also Junior, 21. Apply, giving full particulars, salary required (outdoors), to 74/34, Office of this Paper.

MANCHESTER.—Wanted, smart qualified Branch Manager (outdoors). Apply, with full particulars, stating age, height, salary required, and experience, with photo, D. Dickson, Pharmacist, Clayton, Manchester.

MARGATE.—Wanted, early in January, for a permanency, an Assistant, about 25, competent in Dispensing and Retail, for good-class business. State last two engagements, age, height, and salary required (indoors), to John Bailly & Co., 2 Ethelbert Terrace, Margate.

SOUTH KENSINGTON.—Wanted, January, qualified Assistant; must have had good West-End Dispensing experience; outdoors. Usual particulars and photo to B. R. Wilkinson, 23 Cromwell Place, South Kensington.

WEST END.—Qualified Assistant (indoors). Apply personally, or photo and full particulars by post, "H. S.," 7 Pall Mall East, S.W.

BALKWILL & CO. have vacancy for Junior Assistant. Apply, giving full particulars as to experience, height, age, salary required, etc., and enclosing photo, to F. W. Hunt, 106 Old Town Street, Plymouth.

DRUGGISTS.—Wanted, a smart woman to take charge of Patent-medicines Department; must have good experience and knowledge of First-aid; a permanency; good salary to suitable applicant. Apply, stating age, references, and salary required, to S. M. Lewis's, Bull Street, Birmingham.

EXPERIENCED Assistant; indoors; unqualified; age about 23; must have exceptional references. Leighton & Co., Pharmacists, Lea Bridge Road, Leyton, N.E.

FRANK A. ROGERS, 327 Oxford Street, London, W., has a vacancy for a first-class Counter Assistant; qualified; outdoors; West-End experience preferred.

JUNIOR wanted (indoors), accustomed to Light Retail and Dispensing business; half-holiday duty between 3; comfortable home. Horniblow & Son, Chemists, Worcester.

JUNIOR wanted for February 1 (outdoors), for Dispensing, Agricultural, and Photography. Apply, "Wiltshire" (72/40), Office of this Paper.

LEWIS & BURROWS have a vacancy for a first-class unqualified Assistant; middle-aged man not objected to. Apply, with full particulars and enclosing photograph, to 146 Holborn Bars, E.C.

MANAGER for small Cash business, live over premises; able to work up business; succession if desired. Particulars of salary, reference, etc., to "Sanatogen" (19/14), Office of this Paper.

MANAGER; qualified; Market town; smart business-builder; knowledge of Farmers' requirements; Prescribing, Photography, some Optics and Dentistry useful, not essential. Full particulars as to age, experience, if married what family, salary required (on or off premises), when disengaged, references, photo, Foster, Ivydale, London Road, Portsmouth. Dental Operator Mechanic also required.

MANAGER, about 25-30 years of age, required at once; good salary to first-class man. Apply, H. D. Hayward, Leicester Square, Walsall.

MANAGER wanted by January 22 for river-side town; good-class Retail, Dispensing, and Photographic business; must be a good Counterman and Prescriber and thoroughly understand the Agricultural side. Apply, with full particulars as to salary and experience, to Holme, Chemist, Wallingford, Berks. Applicants unanswered in 3 days declined.

QUALIFIED Assistant as Senior, about 24, in good-class Dispensing business, early in January; indoors preferred. Apply, with full particulars as to age, experience, salary, and references, to J. Parrott, Richmond Hill, Surrey.

QUALIFIED Dispenser wanted in a City establishment; short hours; no Sunday duty. Apply, by letter, stating age and wages required, to "Mel," c/o Street's, 30 Cornhill, E.C.

QUALIFIED; young; indoors; comfortable home. Enclose photo and full particulars to Felce & Co., 22 High Street, Bromley, Kent.

SMART Junior required. Apply personally, or by letter stating age, experience, and salary expected, to Jones Brothers (Holloway), Ltd., 338/366 Holloway Road, N. Close 2 o'clock Saturdays.

WANTED at once, smart Junior or Improver; outdoors; knowledge of Photography essential. Apply, G. W. G. Robinson, Station Pharmacy, Herne Hill, S.E.

WANTED, early in January, a competent Assistant; good Dispenser, with knowledge of Photography. Full particulars as to age, experience, salary required, photo desirable, Hinton Lake & Son, Ltd., Exeter.

WANTED, young man for Stockkeeping, putting up of Proprietaries, &c. Wallas & Co., Chemists, 36 New Cavendish Street, London, W.

WANTED, Branch Manager; qualified; abstainer preferred; must be used to quick Cash trade and hold good references. Particulars from Griffiths, Chemist, Droylsden.

WANTED, for Ireland, an Assistant with Minor qualification; must be a neat and accurate Dispenser and used to making Galenical Preparations. Apply, with full particulars, to "A. R.," The British Drug Houses, Ltd., Graham Street, City Road, N.

WANTED, a Junior Assistant (indoors), 18 or 19 years old; hours of business easy; weekly half-holiday; no Sunday duty and comfortable home. Apply, H. Hopkinson, Chemist, Grantham.

WHOLESALE.

FIRST-CLASS Essence Manufacturers require educated Representative, of good address, tact, and energy, for Scotland and Ireland, to call on Mineral-water Manufacturers, Confectioners, and other users of Essences; connection established, but a man with ability to increase this required. 73/10, Office of this Paper.

JUNIOR Clerk wanted; Shorthand and Typewriting an advantage. Give age, experience, salary, and references, Hough, Hoseason & Co., Sun Buildings, Bridge Street, Manchester.

LADY Pharmacist wanted by Manufacturing house; applicants must have the Major or Minor qualification. State age and full particulars of previous experience to 19/110, Office of this Paper.

TOWN Representative wanted for London firm with established connection, Packed Toilet Articles and Proprietaries; must be well known and able to arrange window-shows of advertised Proprietary showing 100 per cent. profit; permanent position with good prospects to able man; salary and commission. Apply, with fullest particulars, to 72/12, Office of this Paper.

WANTED, in London and district, Representatives, to sell good Side-lines; state age, past experience, and district covered; sale on commission; must have good reference and experience. Apply, "Homalt" (48/2), Office of this Paper.

WHOLESALE.—Firm requires qualified Assistant with experience of good-class Pharmacy; must be well educated and an accurate and methodical worker. Apply to 19/11, Office of this Paper.

SITUATIONS OPEN (Colonial, Indian, and Foreign).

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid. Replies addressed to this office will be forwarded to the advertiser for an additional charge of 6d.

CAPE COLONY.—Assistant wanted for business in principal Coast Town; Minor qualification; about 24 years of age; 3 years' agreement; salary £204 first year, £216 second year, and £228 third year; second-class passage paid; good opportunity for smart steady man. Apply, "B. W. B.," c/o John Murdoch & Co., 52 Leadenhall Street, E.C.

SOUTH AFRICA.—Qualified Assistant; Dispensing Counter; Coast town; age 23 to 25; abstainer preferred; used to good-class business; 3 years' agreement; £17, £18, £19 monthly respectively; outdoors; second-class passage paid. State full record, "D. R. K.," c/o Street's, 30 Cornhill, E.C.

TRANSVAAL.—Qualified smart Assistant wanted at once for country business. Apply, "W. L. H.," The British Drug Houses, Ltd., Graham Street, London, N.

SITUATIONS WANTED

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 6d.

[HOME].

RETAIL.

QUALIFIED man; disengaged; 11 years last situation; 40. "H., 32a Appletongate, Newark.

PART-TIME; Student desires part-time position. Lockhart, 141 Eglinton Road, Woolwich.

UNQUALIFIED; 38; tall; Store experience; Dispenser. "V., 39 Florence Road, New Cross.

QUALIFIED; any capacity; disengaged; good experience. "R., 526 Gloucester Road, Bristol.

LOCUM or permanent; qualified; tall; 39; good references. Longman, 17 York Chambers, Adelphi.

UNQUALIFIED; 24; tall; London preferred. "Experienced," 6 Lincoln Road, Ponders End, Middlesex.

JUNIOR; 21; married; good Dispensing, Retail, Photographic experience. Baines, Etonhurst, Gt. Malvern.

QUALIFIED; 31; Locum or permanent; references. "Manager," 65 Ayres Road, Old Trafford, Manchester.

RELIEF; day, week, or arrangement; Extractor; highest references. "Chemist," 33 Scaford Road, West Ealing.

LOCUM; qualified; 30; experienced; disengaged. "Pharmacist," Holly Lodge, Station Avenue, Bridlington, Yorks.

LADY Pharmacist seeks situation; 4½ years' Retail experience; Hospital or Institute preferred. West, Wadebridge, Cornwall.

JUNIOR Assistant desires situation; has had 4 years' London and provincial experience. Apply, W. Street, Brompton Road, S.W.

ELDERLY qualified Manager, Assistant; permanency; single; active; Prescriber. "Reed," 4 Woburn Street, Bloomsbury, W.C.

QUALIFIED; Manager, Senior; outdoors; thoroughly experienced; disengaged. "Statim," 87 Lower Bank Road, Fulwood, Preston.

EXPERIENCED and reliable unqualified Assistant; disengaged; good references; married; middle-aged. "B., Haddonhurst, Cheltenham.

PHARMACEUTICAL Chemist, with highest-class West-End experience, seeks re-engagement; outdoors. Ford, Broad Street, Newtown, Mont.

RELIABLE, elderly Locum per day or week; excellent references; abstainer; unqualified. "Statim," 5 Beaconsfield Villas, Hillingdon, Middlesex.

QUALIFIED; elderly, active; high-class experience and references; temporary or permanent; moderate salary. "L., 81 Chalk Farm Road, N.W.

LONDON preferred; Manager; disengaged; expert Dispenser, Prescriber, Photographer; excellent references. "Aspirin," 38 Clarendon Road, Edgbaston.

QUALIFIED; 27; as Senior or Manager preferred; good provincial and West-End experience; free January 1. "B., 23 Clarendon Street, Pimlico, S.W.

MANAGER, M.P.S., wide experience, energetic, abstainer, desires permanency; outdoors; undeniable references. "Pharmacist," 144 Sackville Road, Hove.

ASSISTANT, unqualified (28), desires situation; outdoors; experienced Dispenser; first-class references. H. Walker, 25 Elmsdale Road, Walthamstow, N.E.

DISENGAGED; unqualified Assistant; high-class Dispensing, Counter, and Infirmary Dispensing experience; age 34; married. Allen, 10 Union Terrace, Exeter.

JUNIOR; unqualified; 22; 5 years' Counter, Dispensing, Photographic, London experience; London only; disengaged. "Statim" (71/24), Office of this Paper.

LOCUM or permanency; disengaged; 13 years' good experience, London (West End) and provinces; unqualified; abstainer; good references. Tavener, 3 Essex Road, Stevenage, Herts.

QUALIFIED Manager or Assistant; disengaged; 35; wide experience, including Photography; highest references; permanency or temporary. Furber, 5 Abbey View, Bath.

QUALIFIED; 31; all-round experience; good references; disengaged January 15; outdoors; London or South Eastern Counties preferred. "Anethol" (73/5), Office of this Paper.

BATH or Surroundings.—Unqualified; 23; tall; London and country experience; highest references; disengaged about January 6. A. J. Allsopp, Bridge Road, Uxbridge, Middlesex.

HOME or Abroad; qualified; 30; married; sterling references; Wholesale preferred; fluent French and Italian; good administrator; disengaged January 1. "H. C., 10 York Road, Hove, Sussex.

PHARMACIST, considerable general experience, tall, married (39), seeks responsible position, Retail or Wholesale; London references; salary moderate if progressive. 75/30, Office of this Paper.

COMPETENT; unqualified; 26; abstainer; finest City experience; highest references; Photography, Dispensing, Window-dressing; good Salesman. R. W. Jackson, 152 Riverdale Road, Plumstead, S.E.

MINOR Student is able to give a little Relief on two nights a week; London and Continental experience, speaking French; capable of being left in charge. Apply, "Minor," 294 Camden Road, N.W.

RELIABLE Assistant; 23; Dispensing, Prescribing, and Counter; excellent references; last berth 7 years; abstainer; can Extract; disengaged. Reply to "Statim," 129 Heywood Street, Hightown, Manchester.

ASSISTANT; unqualified; experienced Branch Manager; married, no family; disengaged; good references; trustworthy; 35s. weekly (outdoors); permanency desired. "Spero," 48 Devonshire Road, Cambridge.

UNQUALIFIED Senior or Manager; smart appearance, tall; smart Salesman and Window-dresser, Prescriber and Extractor; West-End and Colonial experience; outdoors; abstainer. 75/21, Office of this Paper.

WITH view of Purchase; Druggist; married; 35; unqualified; thoroughly experienced; first-class Salesman, Prescriber; having sold own business; salary and commission preferred. 75/2, Office of this Paper.

ASSISTANT; 5 ft. 10 in.; 29; West-End and Suburban experience; capable Manager; well up Counter, Photo, Dispensing, etc.; good references; outdoors; unqualified. "Statim," 33 Steradale Road, Wandsworth.

COMPETENT, experienced Assistant; Dispenser, Prescriber, Photography; unqualified; 34; married; used to Management; 6 years' present reference; disengaged January 1. "K., c/o arucs, Pharmaceutical Chemist, Upton Manor, London, E.

LOCUM; experienced; qualified; disengaged; good references; age 30. 75/9, Office of this Paper.

LOCUM or permanency; disengaged January 10, experienced; references. 74/40, Office of this Paper.

DISENGAGED; single; highest references; age 30; unqualified. "C. A. R. U.," 90 Droop Street, London, W.

ASSISTANT; age 23; Store experience; Birmingham district preferred. "Rhei," 240 Blackfriars Road, S.E.

CHEMIST; 52; temporary or permanent; Manager, Dispenser. "Pheucetin," c/o 10 Dnenedin Road, Leyton, E.

JUNIOR; disengaged; total abstainer and steady; Shipping or Analytical preferred. 72/30, Office of this Paper.

MANAGER; qualified; experienced; competent and abstainer; reference. 71/35, Office of this Paper.

JUNIOR, early in January; 7 years' experience; Dispensing, Counter, Photography. Clark, 4 Saville Row, Bath.

ASSISTANT; 25; English; at present on Continent; Dispenser, Photographic, etc. Apply, 72/15, Office of this Paper.

LOCUM; great experience; town or country; trustworthy; references. Forster, 5 Coleridge Road, Finsbury Park, N.

JUNIOR; 19½; 3 years' experience; well recommended; London preferred. Wilks, 15 Park Avenue North, Hornsey, N.

QUALIFIED; Dispensary or Wholesale; London; good experience and recommendations. Apply, 72/13, Office of this Paper.

QUALIFIED; 29; all-round experience, West End and suburban; excellent references; outdoors. 73/11, Office of this Paper.

LADY Dispenser (Minor); good experience and testimonials; London; Doctor or Institution preferred. 74/38, Office of this Paper.

YOUNG man seeks a post where he can get experience in Compounding and with Tinctures; no salary. Gamblin, 13 The Green, Gosport.

QUALIFIED, experienced Branch Manager seeks appointment; Extractor; mutual terms. "Chemist," 2 Fleming Road, Kensington Park, S.E.

UNQUALIFIED; 25; 5 ft. 8 in.; 8 years' good Retail, Dispensing, and Photographic experience. "Maxilla," 6 Dorville Crescent, Ravenscourt Park, W.

SURGEON'S Dispenser or Locum; 40; sober, reliable; Extractor; excellent references; small salary. 75/26, Office of this Paper.

LOCUM, Assistant; highest references. "Beta," 74 West Hill, Putney, S.W.

MANAGER, experienced, shortly seeks berth: married; tall; qualified; City and West-End experience. "Chemist," 109 St. Leonards Road, Hove.

WHOLESALE.

Trade circulars, samples, and printed matter can in no case be forwarded.

SITUATION wanted as Wet or Export Counter hand; 10 years' experience. 75/31, Office of this Paper.

YOUTH (18), tall, requires situation in Laboratory; experienced. "Chemist," 39 Central Street, E.C.

WANTED, post as Representative; Drugs, Sundries, etc.; connection. 71/20, Office of this Paper.

TRAVELLER, good connection in the South, 4 years last house, desires engagement. 71/28, Office of this Paper.

GENTLEMAN requiring situation as Traveller in Toilet Goods; wage and commission. 19/60, Office of this Paper.

TRAVELLER (26), disengaged, seeks situation; 5 years' experience London house; excellent references. 72/22, Office of this Paper.

LABORATORY.—Working Manager, qualified, up to date, large experience, desires change early in 1912. "Industrial Spirit" (72/36), Office of this Paper.

YOUNG Traveller requires a change, 2 days inside and 3 out, having 250 good customers; salary, commission, expenses. "Romeo" (74/26), Office of this Paper.

26, best Wholesale and Retail experience, desires berth where Salesmanship and versatility are essentials; highest references. "Hermalin," 132 Riverdale Road, Plumstead, S.E.

TRAVELLER, experienced, good connection North of England and Scotland, open to Represent good-class firm; Drugs, Sundries, or Toilet Preparations; excellent references; disengaged February. 71/14, Office of this Paper.

MISCELLANEOUS.

(Copy of Circular issued to the trade.)

NEWBALL & MASON,
NOTTINGHAM.

December 18th, 1911.

Dear Sirs,

As you are aware, my partner, Mr. Thomas Mason, died on the 1st of June last.

I am now the sole proprietor of the business, but shall still carry it on in the name of Newball & Mason.

All debts or claims against the business will be paid by me.

Yours truly,

Benjamin Deaville.

McADAM & TUCKNISS, Sharedealers, Bank Chambers, Blackheath, S.E. Telephone 81 Lee Green.

SHARES FOR SALE (free of commission, subject).—250 Baiss Bros. & Stevenson 5½ per cent. Preference, 11s. 3d.; 50 Brunner Mond, 100s. 6d.; 100 Parke's Drug 6 per cent. Preference, 10s. 4½d. c.d.; 75 Wright Layman Preference, 20s. 9d.

WANTED (subject).—200 Idris "A" Preference, 5s. x.d.; £300 Debentures, £56 each; Camwal Preference; Allenbury Preference; 100 G. B. Kent Preference, 15s. 3d. x.d.; 100 Wright Layman Preference, 20s.

List of shares for sale and wanted sent free on application. Bankers, London County and Westminster. Established 1898.

SHOPFITTINGS (equal to new).—13-ft. Drugfitting, with Mahogany and Glass-labelled Drawers, etc.; 12-ft. Mahogany and Plate-glass Serving-counter, with Counter Drawers at back; Mahogany and Plate-glass Perfumery Showcase and Desk; 6-ft. Mahogany and Bent Plate-glass Counter Showcase; 10-ft. handsome Mahogany Wall Showcase; 6-ft. Mahogany and Plate-glass Dispensing-screen and Counter, with Sponge-case; all in excellent condition; price £60; ready for immediate use. **PHILIP JOSEPH & SONS, LTD.**, 93 Old Street, London, E.C.

McQUEEN'S System of Accounts for Chemists; works out gross and net profits, balance sheet, and income-tax return with guaranteed certainty; a work well known and considered indispensable by progressive Chemists (Ninth Edition). Full particulars and testimonials, post free, McQueen & Co., Moat Road, E. Leicester.

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, E.C.

CHEMISTS' second-hand large Stock of Drug-fittings, Wall-cases, Dispensing-screens, Glass-fronted Counters, Window-enclosures, Mirrors, Window Shelves, Swan-neck Carbonyls; also complete Fittings for large Drug Stores; cheap to clear; estimates free. H. Mills, Chemists' Up-to-date Shopfitter, Shop-front Builder, Steam Works, 163-5 Old Street, London, E.C. Phone 550 London Wall.

A MESSAGE TO ALL PHARMACISTS.

The best Wishes for a Happy Xmas and a prosperous New Year. This week a Pharmacist writes:—"Continuing for another year"; (which makes his 3rd year with me). Another states "Your ideas are excellent, one of my best Specialties is from your idea and formula. Do not put it off any longer, a postcard will bring a copy of my booklet, "How to Increase Your Business." No catchpenny ideas sent, but you build and increase your trade through your Specialties alone.

BILLYARD ALLISON, Pharmacist & Business Specialist, RETFORD.

SPECIALLY GOOD ADVICE

for the New Year. Shake off your lethargy and incredulity by investigating the Bernard Slack System of Increasing Chemists' Businesses. Now nearly the end of the sixth year of continuous Success. Booklet free, get it.

BERNARD SLACK, 9 King St., Wolverhampton. Nat.Tel.581.

EXCHANGE COLUMN

One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No advertisement inserted for less than 6d.

FOR DISPOSAL.

BOOKS AND PERIODICALS.

WHAT offers?—"C. & D. Diary" 1912; also "C. & D." (1912) posted every Saturday. ARMSTRONG, 343 Upper Street, Islington.

DRUGS AND CHEMICALS.

SURPLUS Stock.— $\frac{1}{2}$ oz. grain musk; what offers? WYATT, Dispensing Chemist, The Broadway, Barnes.
5 CWT., in 2½-cwt. drums, Lever's best glycerin; carriage paid; offers wanted. "S. A. S." (72/21), Office of this Paper.

SHARES.

FOR sale, 50 5 per cent. Preference Evans Lescher & Webb; 50 5 per cent. Preference Schweppes; 100 5 per cent. T. & H. Smith, Ltd.; 100 Sanitas Ordinary; what offers? 70/29, Office of this Paper.

WANTED.

B.P., 1851 edition, for cash, or will exchange an 1837 edition. NUNN, Chemist, Colchester.
SMALL nest of drawers, good condition, 5 ft. long, 3 ft. high, 1 ft. deep. State price, Blackhill Drugs, Durham.
LIGHT truck for syphons, etc, or wheels for Idris truck. SHARMAN, Northwood, Middlesex.
OPTICAL books; Minor, Major Chemists' books; send prepaid for valuation; cash offers per return. GOWER, Bookseller, Waterloo, Liverpool.

TRADE-MARKS.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with Mr. Temple Franks, Comptroller-General, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned.

The figures in parentheses refer to the classes in which the marks are desired.

(From the "Trade-marks Journal," December 6, 1911.)

"COTARA"; for all goods (48). By Chrstr. Thomas & Bros., Ltd., Broad Plain Soap Works, Bristol. 337,334.

"ORTIZON"; for a mouth-wash preparation (48). By Bayer Co., Ltd., 20 Booth Street, Manchester. 337,414.

(From the "Trade-marks Journal," December 13, 1911.)

"BELL BRAND" and design of bell with the letters "A. S. Co."; for ammonia soda, caustic soda, and soda-crystals (1). By Ammonia Soda Co., Ltd., Lostock, Graham, Cheshire. 337,308.

"HY-Dis"; for disinfectants (2). By Smith & Co., 10 Fawcett Avenue, Leeds. 336,970.

"IVOLINE"; for a preparation for washing animals (2). By F. G. Reynolds, Unicorn House, Broadway, St. Ives. 336,994.

"CROSFIELDS' PINKBOLIC SOAP" and label designs; for disinfectant soap (2 and 3) and for common soap (47). By J. Crosfield & Sons, Ltd., Bank Quay, Warrington. 337,445/6/7/8/9.

Picture of a lioness and cubs; for hæmatogen and preparations of hæmaglobin (3). By Hommel's Hæmatogen Manufacturing Co., 22 Josephstrasse, Industriequartier, Zurich. 329,589.

Facsimile signature "ALBERT A. LOWENTHAL, M.D."; for medicinal substances (3) and for substances for injection (11). By A. A. Lowenthal, 84 Adams Street, Chicago, U.S.A. 334,796, 335,584.

"FORAL"; for dentures, etc. (11). By C. Rauhe, König-sallee 8, Dusseldorf. 335,215.

"SANAX," for surgical apparatus (11); "VIBRAX," for massage apparatus (11). By Sanitas Electrical Co., Ltd., 61 New Cavendish Street, London, W. 335,945/6.

"HYKOSTA"; for perfumes and cosmetics (48). By C. A. Tancré, Taunusstrasse 59, Wiesbaden. 336,115.

"HERCULENE HAIR-POMADE"; for toilet-pomade (48). By T. H. East, 275 Hyde Road, Ardwick, Manchester. 337,159.

"ORYL" and "BI-ONYNE"; for preparations for the teeth (48). By Société Française de Produits d'Hygiène Buccale, 6bis rue de Chateaudun, Paris. 337,775/6.

(From the "Trade-marks Journal," December 20, 1911.)

"FORMADIS"; for disinfectants, etc. (2). By Sanitary Disinfectant Co., 11 Pancras Lane, London, E.C. 336,448.

"LOTEX"; for all goods (2). By H. Wells Oil Co., Bloom Street, Salford, Manchester. 336,822.

Label design, including word "SANATOGEN"; for a medicinal preparation (3). By J. A. von Wulffing, 231 Friedrichstrasse, Berlin, S.W. 48. 335,407.

Label device of man leaning on a pillar bearing word "ROMALÈNE"; for medicinal oils (3) and for all goods (48). By S. H. H. Barratt, 27 Hollycroft Avenue, Hampstead, London, N.W. 336,417/8.

"TOSA"; for a chilblain-cure (3). By Thos. Christy & Co., Old Swan Lane, London, E.C. 336,722.

Label design showing injured white man being treated by negro; for a medicinal compound (3). By Business Aid Association, 19a Charles Street, Bradford. 336,431.

"HYOMEE"; for all goods (3 and 11). By J. E. Garratt, 96 Southwark Street, London, S.E. 337,276/7.

"TAXI" and design of motor-cab; for medicinal chemicals (3). By J. H. Bailey, 61 Old Dover Road, Blackburn, London, S.E. 337,844.

"USPULUN"; for medicinal chemicals (3). By Bayer Co., Ltd., 20 Booth Street, Manchester. 338,009.

"PHILMAUR"; for surgical apparatus (11) and for various goods (48). By Henry Gordon & Blumberg, Ltd., 57 Chiswell Street, London, E.C. 336,860/1.

"RELIAANCE" and the letters "R.B." in a circle; for medical batteries (11). By Medical Batteries Co., Sicilian House, Southampton Row, London, W.C. 337,057.

"BLUE DIAMOND BRAND" and design of three diamonds; for essential oils, essences, etc. (42). By W. Meadowcroft & Son, Ltd., 24 Regent Street, Blackburn. 334,070.

PEARS

SOAPMAKERS

BY
APPOINTMENT
TO THEIR
MAJESTIES
THE

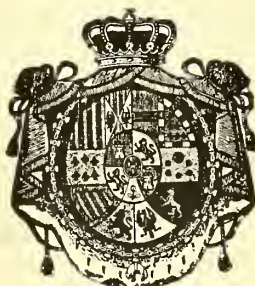
KING & QUEEN.



KING GEORGE V.



QUEEN MARY.



Also to the
KING & QUEEN
OF
SPAIN.



THE LATE KING EDWARD VII.



QUEEN ALEXANDRA

AWARDED 22 PRIZE MEDALS.

HOLDERS OF THE
ONLY GRAND PRIX and the ONLY GOLD MEDAL
EVER AWARDED SOLELY
For TOILET SOAP

BRONCHIAL WAFERS

A few years ago, in response to a demand for a high-class concentrated Bronchial Wafer, we perfected the finest known formula and introduced it into the market

ON A LARGE SCALE.

We spared no effort to make this wafer

THE BEST OF ITS CLASS

in therapeutic efficacy—in instantaneous effect—in perfection of form, with the result that to-day, although the number of "Wafers" on the market is legion, our make is

UNSURPASSED and UNAPPROACHED.

Suitable alike for the highest class and the humblest trade, these Wafers offer superlative value to the consumer, and are the means of bringing numbers of customers to the Pharmacy, orders being repeated time after time.

In past years we have sold them in millions, and the sale is ever increasing.

Price in bulk: 3/6 per lb.
28 lbs., 3/4 } less 5/-
1 cwt., 3/2 }

Card Boxes, 2/10 per doz.
Artistic Tins for the waistcoat } net.
pocket, 2/- per doz. }

These Wafers average 120 to the ounce.

The card box contains about 90 Wafers.

The small tin contains about 60 Wafers.

Hand-cut—Potential in effect—of beautiful finish.

RAIMES & CO., Wholesale Druggists, YORK.

ESTABLISHED 1772.

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care, in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11, East Street, St. Peter's, Manchester,

And is sold in Bottles, authenticated by a Government Stamp bearing their name, Trade Mark, "Henry's Calcined Magnesia."

PRICE 4s. 6d. or 2s. 9d.

NEW YORK: Messrs. SCHIEFFELIN & CO., William Street.

PARIS: Messrs. ROBERTS & CO., 5, Rue de la Prie.

B. A. SMITH & CO., 4 CHURCH ROW, ALDGATE, LONDON, E.C.

(HENRY BOYCE, Manager), AGENTS FOR

JOH. DIEDR. BIEBER, HAMBURG:

Tinctures, Ethers, Liniments, and Spirituous Extracts, &c., prepared with purest Spirit, and from best quality of raw Drugs, in accordance with requirements of British and other Pharmacopœias, Iodoform (absolute), Iodine Resublimed, Potassium Iodide, Sodium Iodide, all Preparations of Bromine, Santonin (from Turkestan factory), Cocoa Butter, Castor Oil, Chloroform, Cod Liver Oil, Resina Jalapæ, Resina Scammonia.

GALENICALS

FROM CHEMICALLY AND PHYSIOLOGICALLY TESTED DRUGS.

Willows, Francis, Butler & Thompson, Ltd.,
40 Aldersgate Street, LONDON, E.C.

AUSTRALIAN AGENTS
FOR VICTORIA AND
TASMANIA:

Rocke, Tompsett & Co.
Melbourne.

Established 1750

AUSTRALIAN AGENTS
FOR WESTERN
AUSTRALIA:

Neale, Constable & Co.
Perth.

WYLEYS LIMITED

Wholesale Druggists, Manufacturing Chemists.

PHARMACEUTICAL PREPARATIONS
PHARMACEUTICAL SPECIALITIES
PEARL & GELATINE COATED PILLS
GRANULAR EFFERVESCENT PREPARATIONS
COMPRESSED TROPELS (SUGAR COATED AND CHOCOLATE COATED)
"TROPELS," "BI-TROPELS" & PASTILLES
EFFERVESCENT TROPELS
STANDARDIZED TINCTURES (ALSO IN BOND)
CONCENTRATED TINCTURES
GLYCERINE TINCTURES
CONCENTRATED INFUSIONS
CONCENTRATED DECOCTIONS
DURAPLASTIC HORSE BALLS
VETERINARY SPECIALITIES

COVENTRY

Price Lists on Application

ভারতের

PURE PRODUCTS

নিউয়র্ক



HOME, INDIAN AND COLONIAL MARKETS.

CORBYN'S QUININE SALTS,

With the exception of Sulphate, are now manufactured in our own Laboratories at Brunton's Wharf, special and up-to-date plant and appliances having been installed for the purpose. This new departure enables us to place these highly refined products on the Home, Indian and Colonial Markets at prices alike more favourable to large and small buyers than ruling market quotations. We invite inquiries.

QUININE PILLS AND TABLETS we are also enabled to quote at competitive prices in any quantity.

CORBYN'S REFINED EPSOMS.

Pure and free from metallic impurities, they contain no Chlorides or Nitrates, are non-hygroscopic and do not become damp on exposure to the air—1 cwt., 9/-; 14-lb. parcels, 9/6 cwt.; 7-lb parcels, 10/- cwt.; smaller parcels, 14/- cwt.

CORBYN'S MAGN. CARB. POND.

Free from metals. Whitest and densest.

Telephone: East 1833.

Telegrams: COLOCYNTH, LONDON.

CORBYN, STACEY & CO. LTD LONDON**WHOLESALE ONLY.**

**FRENCH CHALK, TURPENTINE (Transparent),
TALCUM VENET, BLACK ANTIMONY, &c., &c.**

Please write for Lowest Quotations and Samples to

KAHN & CO., 40 Trinity Square, LONDON, E.C.,

Sole Agents for Great Britain.

DEUTSCHE ISOLIR U. STEINHOLZ-WERKE.

Telephone: City 422.

Telegrams: "Simperard London."

C. F. Boehringer & Soehne, Mannheim, Waldhof, Germany.

COCAINE BOEHRINGER.

→ **SULPHATE OF QUININE AND ALL CINCHONA PREPARATIONS.** ←

Acetanilid,
Atropine,
Caffeine,

Chloral-Hydrate,

Codeine,

Coumarine,

Santonine,

Eserine,

Guaiacol,

Hydrastine,

Terpin-Hydrate,

Hydroquinone,

Lactophenine,

Phenacetin,

Veratrine,

etc.

Pilocarpine,

Pyrogallie Acid,

Resorcine,

Sole Agents for the United Kingdom:—

Messrs. DOMEIER & CO., 8 Harp Lane, London, E.C.

B. & S. BRAND.

B. & S. BRAND.

1844 1911
THOMAS TYRER & Co. Ltd.
Sterling Brand
STRATFORD, LONDON, E.

GRAND PRIZE, LONDON, 1909.
GOLD MEDAL, ST. LOUIS, 1904.

**Acids, Hydrochloric, Nitric,
Phosphoric, Sulphuric,**
PURE & TECHNICAL.

CHEMICALS
FOR
HORTICULTURAL
AND
AGRICULTURAL
PURPOSES, &c.

**Bismuths, Mercurials,
Hypophosphites, Ethers**
and all Technical & Special Chemicals.
OUR SOL. 'MAGNESIA BICARB.' CONTAINS NO ARSENIC.

OUR REPUTATION YOUR GUARANTEE

Glycerine

Distilled, Refined, and for
Technical Purposes, supplied
at advantageous
terms by the

Hamburg Glycerine Manufactory,
HERMANN MEFFERT & CO.
Hamburg 5.

"FERNLEIGH" SALINE.

REGULATING, INVIGORATING,
COMFORTING, AND NO GRIPING
IN ACTION.

:: **ALL CHEMISTS.** ::

For Wholesale Terms apply to
LEWIS SMITH, Chemist, HEREFORD,
SOLE AGENT FOR GREAT BRITAIN AND COLONIES.

TRY "Electro"
Specialities.

**Sulphite of Soda
Crystals.**

**Hyposulphite of
Soda.**

**Muriate of
Ammonia.**

It is worth your while to send for
Samples and Price.

TELEGRAMS: "ELECTRO."

TELEPHONE No. 21.

THE ELECTROLYTIC ALKALI CO. LTD.
MIDDLEWICH, CHESHIRE.

H. E. KERSHAW, Ltd.

131 Curtain Rd., LONDON, E.C.

IMPORTERS OF

SHELLAC

Of all kinds.

Manufacturers of

WHITE SHELLAC

SAL HEPATICA.

PUT UP FOR EXPORT.

Small size, 3 oz. bottle, in case.
Medium " 7 " " "
Large " 16 " " "

OBTAINABLE IN LONDON FROM

Thos. Christy & Co., 4-12 Old Swan Lane,
Upper Thames Street, E.C.

The American Drug Stores, 24 Orange Street,
Haymarket, London, W.C.

Burgoyne, Burhidges & Co., 16 Coleman Street,
E.C.

F. Newbery & Sons, Ltd., 27 Charterhouse
Square.

Roberts & Co., 76 New Bond Street, W.



Bromides, Iodides, Bismuth Subnitrate, Gallic Acid, Phenacetin, Salol,

**Cacodylates,
Glycero-
phosphates,
Veronal,
Atropine,
Eserine,
Pilocarpine,
Cocaine,**

A Druggist is known by the drugs

he sells, therefore specify

Merck's

on your orders.

Merck's are the Standard and cost no more.

**Santonin,
Salicin,
Strychnine,
Sparteine,
Terpin-
hydrate,
Veratrine.**

**Yohimbine, Caffeine, Chloralhydrate, Morphia, Codeine, Dionin, Styptiolin,
Chloroform for Anæsthesia, Ether for Anæsthesia,
Fibrolysin, Photographic Chemicals.**

E. MERCK, DARMSTADT & 16 Jewry St., LONDON, E.C.

H. SALLE & CO., PARIS,

— FOR —

**ACID CITRIC
ACID TARTARIC
MORPHIA
CODEIA**

**OIL OF CADE
RED ROSE
STYRAX
VIOLETS
YOHIMBIN TABLETS**

For samples and prices apply—

**BENNETT BROS., 74 COLEMAN ST.,
LONDON, E.C.**

**Chlorate of Potash
Chlorate of Soda
Chlorate of Baryum
Perchlorate of Potash
Perchlorate of Ammonia**

Selling Agents: **CHAS. MANGOLD & CO., LONDON
9 MINCING LANE.**

**SOCIÉTÉ D'ELECTRO-CHIMIE, PARIS,
2 RUE BLANCHE.**

COCAINE

"Boehringer"

MORPHINE

"Boehringer"

CODEINE

"Boehringer"

DIACETHYLMORPHINE "Boehringer"

and all other Opium-Alkaloids.

**C. H. BOEHRINGER SOHN,
NIEDER-INGELHEIM.**

APOMORPHINE

"Boehringer"

NARCOTINE

"Boehringer"

COTARNINE

"Boehringer"

ETHYLMORPHINE "Boehringer"

Agents:
**F. W. BERK & CO., Ltd., Fenchurch Avenue, London, E.C.
BRYCE, SON & CO., Manchester.**

ALBERT GEORGE MORRIS

IMPORTER OF
Drugs, Chemicals & Patent Preparations.

CALLES SALTA Y MEJICO, BUENOS AIRES.

Telegraphic Address: "Bucketful Buenos Aires."

South American Agent for { Howards & Sons, Ltd., Stratford, London.
The Crown Perfumery Co., Homerton, London.

FIRST CLASS AGENCIES ACCEPTED.

Correspondence Invited.

Bankers: The British Bank of South America, Ltd.
London, Buenos Aires, &c.

Schmitt & Wildenhayn,

DARMSTADT, Germany.

Headquarters for all European Pharmaceutical Crude Drugs, Kitchen Herbs, etc.; also Importers of Colonial and Exotic Drugs (Jaborandi Leaves, Manaca Root, GUM CHICLE, etc.)

PURE Chemicals, Dressed Drugs, Pharmaceutical and Alcoholic Preparations, Methylated Spirit, Essences for Rum, Gin, etc., etc.

Special for the **TROPICS:**
ANT EXTERMINATORS.

All Correspondence promptly and courteously attended to.

TO COLONIAL AND FOREIGN HOUSES

THE INDO-BURMA COMPANY, LTD.

EXPORT AND IMPORT MERCHANTS,

108 WOOL EXCHANGE, LONDON, E.C.

SPECIALISE AS BUYING AGENTS FOR

Everything Connected With The
CHEMICAL, DRUG, AND ALLIED TRADES.
INDENTS CAREFULLY & PROMPTLY EXECUTED.
REFERENCES GIVEN AND REQUIRED.
Commission Basis. Correspondence Invited.

ALFRED WHITE & SONS

MANUFACTURING CHEMISTS.

ACIDS, ÆTHERS AND OTHER CHEMICALS . . .
CAREFULLY TESTED AND PACKED FOR EXPORT.

Bismuth Salts.

SPECIAL PRICES FOR QUANTITY.

MANUFACTURERS OF Acids, Æthers, Sp. Æther, Nit., Sp. Ammon. Arcm., Liq. Ammonia, Soldering Fluids, &c., and preparations of Alum, Animal Charcoal, Antimony, Baryta, Bismuth Salts, Strontia, Zinc, &c.

Offices and Warehouse—**ALLEN STREET, GOSWELL ROAD, E.C. (Late Castle Street, Saffron Hill, E.C.)**

Works—**WEST DRAYTON, MIDDLESEX.**

Telegraphic Address—"METHYLATED ETHER LONDON."

Telephone No. 1315 HOLBORN.

ESTABLISHED 1776.



A PURE EXTRACT OF MALT

**RICH IN PROTEIDS
HIGHLY DIASTASIC**

33% Clear Profit FOR THE **Retailer**

Under P.A.T.A. Rules.

DIAMALT

Registered
and in combination with

15% & 33% COD LIVER OIL

These Preparations have
NO EQUAL on the
Market.

Universally prescribed
by the Medical
Profession.

See Reports from leading Medical Journals.

OBTAINABLE OF ALL WHOLESALE HOUSES OR DIRECT FROM

The British Diamalt Co.

11 & 13 SOUTHWARK ST., LONDON, S.E.

Maltings and Works: **SAWBRIDGEWORTH, HERTS.**

ATKINSON & BARKER'S ROYAL INFANTS' PRESERVATIVE

ON P.A.T.A. LIST.

Prices and Terms on application to **R. BARKER & SON,**
11 Russell Street C.-on-M., MANCHESTER.

**DOES
NOT
CONTAIN
any
SCHEDULED
POISON.**

PANKREON "Rhenania"

In Powder and $3\frac{3}{4}$ grain Tablets
(bottles of 25, 50, and 100).

Pankreon Sugar Tablets (boxes of 100,
each $\frac{3}{4}$ grain Pankreon) for infantile practice.

Stable Pancreas Preparation for all
gastro-intestinal disorders.

Also **Pancreatine "Rhenania"** in all strengths.

Stocked by Sole Agents,

WIDENMANN, BROICHER & CO.

33 Lime Street, E.C.,

who will send particulars and prices on demand.

ZEMATONE

POWDERS and CIGARETTES for

ASTHMA

show a profit of 42%.

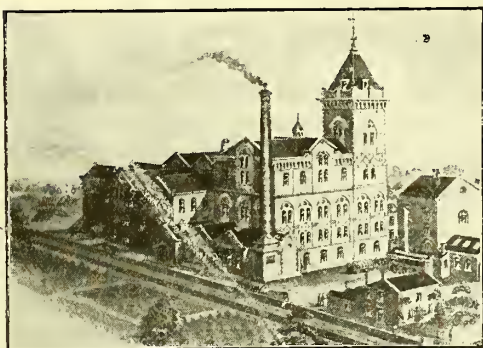
2/6 size 21/- per doz. nett.

1/6 size 13/- per doz. nett.

1 $\frac{1}{4}$ % for cash 7 days.

ON P.A.T.A. LIST.

ZEMATONE CO., King Street, NOTTINGHAM.



MILLS AND MALT EXTRACT REFINERY.

THE
“JOHN BULL”
 and **“PACO”**
MALT EXTRACTS

For Home and Export Trade

WELL KNOWN AS THE
BEST MALT EXTRACTS ON THE MARKET

PAINE & CO., Ltd., Malt Extract Works, **ST. NEOTS, HUNTS.**

CHEST & LUNG CAKE



*The Blue Box
with the
Yellow Label*

7/- per gross

*Special
Quotations for
Quantities.*

Makers:

T. GUEST & CO.,
 Carruthers Street, **MANCHESTER.**



When you see this Illustration

In the Press let it be a reminder to

Examine your stock of

SARGOL

Steadily Advertised. Steadily in Demand.
 The only preparation which **makes Thin
 Folks Plump and Attractive.**

**SARGOL to the CHEMIST means
 QUICK SALES AND LARGE PROFITS.**

STOCK IT TO-DAY.

YOU CAN'T LOSE ON SARGOL.

THE SARGOL CO., 124 Holborn, LONDON, E.C.



PATTINSON'S MAGNESIA

CARBONATE, CALCINED, AND FLUID.
THE WASHINGTON CHEMICAL CO., LIM., WASHINGTON, COUNTY DURHAM, ENGLAND.
*London Agents—*Messrs. CLIFFORD CHRISTOPHERSON & CO., 21 Mincing Lane, London, E.C.



JOHAN BUGGE & CO., BERGEN.

Finest Pure Medicinal . **COD LIVER OIL.**
Lofoten Non-Congealing

*Sole Agents for United Kingdom—*SPARKS, WHITE & CO., LTD.
LONDON—Albion Mills, Tenter St. East. MANCHESTER—2 South King St. GLASGOW—41 Robertson St.

COD JERVELL & CO., Ltd. (*Late Otto S. Jervell*)
AALESUND,
LIVER NORWAY.

COD LIVER OIL
MANUFACTURERS
& WHOLESALE
EXPORTERS.

FACTORIES AT LOFOTEN.

Finest NON-FREEZING LOFOTEN COD LIVER OIL.

Sole Agents for United Kingdom: W. Charity & Sons, 14 Harp Lane, London, E.C.
Tel. Add.: "Charity London," Tel. No.: Avenue 4359.

THE LEADING LINE IN PATENTS
QUICKEST SALES

BEECHAM'S PILLS

May now be had in **£5** Lots, at Lowest Prices, Carriage Paid. Packages Free.

ORDERS must be accompanied by Cash. Cheques to be made payable to Thomas Beecham, and crossed "Parr's Bank, Limited, St. Helens."

PRICES.—Beecham's Pills, 13½d. size (56 pills) ... **PER DOZEN** ... 9/6
" 2s. 9d. " (168 ") ... 25/-
Beecham's Tooth Paste, 1s. size ... 7/6

ADVERTISING MATTER to suit Retailers' requirements will be sent on application.

Address—THOMAS BEECHAM, ST. HELENS, LANCASHIRE.

PRICES ISSUED WEEKLY.

Original Packages can generally be supplied at the Current Prices quoted in the Trade Report of this paper on Terms as below.

- A**cid, Salicyl. pulv., 7 lbs. @ 1/1 lb.; phys. pure, 1 lb. @ 3/- lb.
 " Sulph Aromat., B.P., 5 lbs. @ 3/8 lb.
 " Tannic, B.P., 7 lbs. @ 2/4 lb.
 " Tart. cryst. or pulv., B.P., 1885, 1 cwt. @ 1/0½ lb.; 7 lbs. @ 1/1½ lb.; parv. ¼ d. lb. extra.
 Adeps Benz., B.P., 28 lbs. @ 7½ d. lb.; 7 lbs. @ 8½ d. lb.
 Ammon. Benz., 7 lbs. @ 2/8 lb.; 1 lb. @ 3/- lb.
 Ammon. Carb. lump, 3 cwt. @ 3½ d. lb.; 28 lbs. @ 4½ d. lb.; 7 lbs. @ 5d. lb.; powder, ¼ d. lb. extra.
 Ammon. Chlor., 99% pulv., 1 cwt. @ 33/- cwt.; 7 lbs. @ 4d. lb.; Batteries, 4/- cwt. extra.
 Amyli Pulv., 10 cwt. @ 11/9 cwt.; 2½ cwt. @ 12/6 cwt.; 1 cwt. @ 15/- cwt.
 Aniseed, English ground, 1 cwt. @ 44/- cwt.; 7 lbs. @ 5½ d. lb.
 Antim. Nig. Pulv., 1 cwt. @ 24/- cwt.; 14 lbs. @ 30/- cwt.
Bismuth, P.B., Carb., 7 lbs. @ 8/10 lb.; 3 lbs. @ 9/1 lb.; 1 lb. @ 9/3 lb.; subnit., 1/- lb. less.
Calcii Carb. præcip., 5 cwt. @ 13/- cwt.; 1 cwt. @ 16/- cwt.; 28 lbs. @ 21/- cwt.
 " Hydras, P.B., 1 cwt. @ 25/- cwt.; 7 lbs. @ 5d. lb.
 " Hypophosph. Pur P.B., 1 lb. @ 2/3 lb.
 " Iodid., 1 lb. @ 13/8 lb.
 Camphor, English Flowers, "not artificial," 5 lbs. @ 2/- lb., oz. ¼ or ½ oz. 7 lbs. @ 2/- lb.; Crude, good white, about 92% as imported, 140 lbs. @ 1/7 lb.; 28 lbs. @ 1/8 lb.
 Ext. Hamamelis, Liq., P.B., 5 lbs. @ 3/5 lb.
 Ext. Hyoscyam., Solid, B.P., 3 lbs. @ 4/9 lb.; 1 lb. @ 5/1 lb.
 *Ext. Ipecac. Liq., P.B., 5 lbs. @ 14/2 lb.; 1 lb. @ 15/2 lb.
 Ext. Malti c. Ol. Jecoris, 10 lbs. @ 5½ d. lb.
 *Ext. Nucis Vom. Liq. P.B., 5 lbs. @ 3/- lb.; 1 lb. @ 3/3 lb.; solid, 5 lbs. @ 2/9 lb.; 1 lb. @ 3/- lb.
 Ext. Quassia, Solid, 7 lbs. @ 6/- lb.; 1 lb. @ 6/4 lb.
 Ext. Sarsæ Co. Solid, 7 lbs. @ 4/- lb.; 1 lb. @ 4/6 lb.
Ferri Ammon. Cit., P.B., 28 lbs. @ 1/5 lb.; 7 lbs. @ 1/7½ lb.
 Ferri Carb., 1 cwt. @ 21/- cwt.; 28 lbs. @ 3d. lb.
 Ferri et Quinina Cit., P.B., 500 ozs. @ 3½ d. oz.; 100 ozs. @ 3½ d. oz.; 25 ozs. @ 3½ d. oz.
 Fol. Hyoscyam. Bien., 7 lbs. @ 5/6 lb.; pulv., 5/3 lb.
Glycerin. Opt., D.D., 1260 P.B., 1 cwt. @ 102/- cwt.; 56 lbs. @ 103/- cwt.; 12 lbs. @ 1/2½ lb.
Lin. Campb. P.B., 40 lbs. @ 11d. lb.; 9 lbs. @ 1/- lb.
Mag. Calc. Levis. 56 lbs. @ 8d. lb.; 5 lbs. @ 10d lb.; 1 lb. @ 1/- lb.
 Mag. Calc. Pond., 7 lbs. @ 1/10 lb.; 1 lb. @ 2/- lb.
 Mag. Carb. Pond., 56 lbs. @ 6½ d. lb.; 7 lbs. @ 7½ d. lb.
 Mag. Carb. Levis., 1 cwt. @ 25/-; 7 lbs. @ 4d. lb.
 Pepsin, B.P., 10 lbs. @ 9/4 lb.; 1 lb. @ 10/- lb.
 Phenacetin, P.B., pulv., 1 cwt. @ 2/8 lb.; 7 lbs. @ 2/10 lb.; 1 lb. @ 3/- lb.
 Pbenazone, P.B., 7 lbs. @ 6/11 lb.; 1 lb. @ 7/6.
 Pbenolphthalein, 7 lbs. @ 6/2 lb.; 1 lb. @ 6/8 lb.
 Plumbi Acetas, Druggists', 1 cwt. @ 34/6 cwt.; 7 lbs. @ 5d. lb.; Powder, 1½ d. lb. extra.
 Potas. Acetas. Gran. P.B., 28 lbs. @ 1/- lb.; 7 lbs. @ 1/1 lb.
 Potas. Bicarb. pulv., 1 cwt. @ 32/6 cwt.; 7 lbs. @ 4d. lb.
 Potas. Brom. P.B., 1 cwt. @ 1/4 lb.; 28 lbs. @ 1/4½ lb.; 7 lbs. @ 1/6 lb.
 Potas. Chlor. Pulv., 1 cwt. @ 4d. lb.; 7 lbs. @ 5d. lb.
 Potass. Cit., B.P., 7 lbs. @ 1/7½ lb.
 Potass. Iod. P.B., 1 cwt. @ 7/9 lb.; 14 lbs. @ 7/10 lb.; 3 lbs. @ 7/11 lb.
 Potass. Metabisulph., 1 cwt. @ 42/6 cwt.; 7 lbs. @ 6d. lb.
 Quassia Chips, 1 cwt. @ 12/6 cwt.; 28 lbs. @ 2d. lb.
 Quinine Bisulph. 100 oz. @ 8d. oz.; 25 oz. @ 9d. oz.; 10 oz. @ 10d. oz.
 Quinine Ethyl Carb. (Tasteless), 100 oz. @ 1/9 cwt.; 10 oz. @ 2/2 oz.
 Quinine Hydrobromas or Salicylate, B.P., 100 oz. @ 11½ d. oz.; 25 oz. @ 1/0½ oz.; 10 oz. @ 1/2 oz.
 Quinine Hydrochlor., B.P., 100 ozs. @ 10½ d. oz.; 25 ozs. @ 11½ d. oz.; 10 ozs. @ 1/1 oz.
 Quinine Sulph. B.P., 100 ozs. @ 7½ d. oz.; 25 ozs. @ 8d. oz.; 10 oz. @ 8½ d. oz.

BISMUTH.**CAMPHOR.****OLIVE OIL.**

- Cantharides, Russian, 7 lbs. @ 3/9 lb.; powder, 2d. lb. extra.
 Carbo Animalis or Ligni, powder or lump, 1 cwt. @ 14/- cwt.; 28 lbs. @ 2d. lb.
 Carmine, Finest, 1 lb. @ 17/- lb.; No. 2, 1 lb. @ 13/- lb.
 Cera Alba, B.P., White Moons, 1 cwt. @ 1/6½ lb.; 28 lbs. @ 1/7½ lb.; 4 lbs. @ 1/8 lb.; Flav., 1 lb. Blocks, 28 lbs. @ 1/6½ lb.; 4 lbs. @ 1/7½ lb.; 1 oz., ½ oz. Tabs., 7 lbs. @ 1/7½ lb.
 Chloral Hydras Cryst. B.P., 7 lbs. @ 3/1 lb.; 1 lb. @ 3/6 lb.
 *Chlorodyne, 5 lbs. @ 1/11 lb.
 *Chloroform, pure B.P., 12 8-lbs. @ 1/3½ lb.; 8 lbs. @ 1/4½ lb.; 6 1-lb. bottles @ 1/6½ lb.
 Chlorophyll, 7 lbs. @ 5/- lb.; 1 lb. @ 5/9 lb.
 Cocaine Hydrochlor., B.P., 25 ozs. @ 8/6 oz.; 4 ozs. @ 9/- oz.; 1 oz. @ 9/5 oz.
 Cream Tartar, 98% powder, 1 cwt. @ 91/- cwt.; 7 lbs. @ 11d. lb.
 Creasote, Beechwood, P.B., 22 lbs. @ 1/9½ lb.; 7 lbs. @ 1/11½ lb.
 *Ext. Belladonnae Liq., B.P., 5 lbs. @ 4/3 lb.; 1 lb. @ 4/8 lb.; solid, 7 lbs. @ 2/10 lb.
 Ext. Cannab. Ind., Alc., B.P., 5 lbs. @ 38/6 lb.; 1 lb. @ 39/6 lb.
 Ext. Cascara Sag. Liq., B.P., 1 cwt. @ 1/0½ lb.; 10 lbs. @ 1/2 lb.
 *Ext. Ergot. Liq. P.B., 5 lbs. @ 6/9 lb.; 1 lb. @ 7/4 lb.; Solid, 1 lb. @ 38/6 lb.
 Ext. Filicis Liq., P.B., 9 lbs. @ 4/10 lb.; 1 lb. @ 5/1 lb.
 Ext. Gent., P.B., Solid, 1 cwt. @ 9½ d. lb.; 7 lbs. @ 10½ d. lb.
 *Ext. Glycyrrh. Liq. B.P., 6 lbs. @ 1/4½ lb.
 Mag. Sulph., fine druggists', B.P., 1 cwt. @ 6/- cwt.
 *Mist. Sennæ Comp. B.P., 20 lbs. @ 6½ d. lb. 6 lbs. @ 7½ d. lb.
Napthalene, Candles or Balls, 1 cwt. @ 12/6 cwt. 56 lbs. @ 14/6 cwt.; 28 lbs. @ 16/- cwt.
 Nux Areca, 1 cwt. @ 22/- cwt.; 7 lbs. @ 3d. lb.; powder, English ground, @ 59/- cwt.; 7 lbs. @ 7½ d. lb.
Ol. Amygdal. Ang., B.P., 9 lbs. @ 2/6 lb.
 Ol. Amygdal. Essent. Artificial, free from Chlorine, 5 lbs. @ 3/- lb.; 1 lb. @ 3/9 lb.
 Ol. Anetbi Ang. B.P., 1 lb. @ 12/- lb.
 Ol. Anisi, E.I., 66 lbs. @ 5/10 lb.; 16½ lbs. @ 6/1 lb.; 4½ lbs. @ 6/5 lb.; 1 lb. @ 6/8 lb.
 Ol. Aurant, 12 lbs. @ 8/- lb.; 1 lb. @ 9/- lb.; not guaranteed absolutely pure.
 Oil of Bays, genuine W.L., 9 lbs. @ 15/- lb.
 Ol. Morrhuæ, Nov. 1911, finest non-freezing, 25 gall. tin-lined barrels @ 112/- per barrel; 2-gall. tins @ 11/- each.
 Ol. Nucis Pallid. 45 galls. @ 3/8 gall.; 2 gall. tins @ 9/- each.
 Ol. Olivæ P.B., good yellow, guaranteed pure, 45 gall. Barrels @ 4/5½ gall., 2-gall. tins @ 5/6 gall.
 Otto Rosæ, finest 1 oz. @ 40/- oz.; No. 2, 1 oz. @ 28/- oz.
 Oxytel Scillæ, B.P., 5 cwt. @ 31/- cwt.; 1 cwt. @ 34/- cwt.; *7 lbs. @ 6d. lb.
Papain, 1-80, 1 lb. @ 18/6 lb.; 1 oz. @ 1/7 oz.
 Paraffinum Durum B.P., 2 cwt. @ 2½ d. lb.; 1 cwt. @ 3½ d. lb.; 56 lbs. @ 3½ d. lb.; 7 lbs. @ 4½ d. lb.; Mollie Flav., B.P., 3½ cwt. @ 16/6 cwt.; 1 cwt. @ 25/- cwt.; 28 lbs. @ 3½ d. lb.; 7 lbs. @ 4d. lb.; Alb. B.P., 3½ cwt. @ 55/- cwt.; 28 lbs. @ 7d. lb.
 Rad. Gent. English Ground, 1 cwt. @ 37/- cwt.; 7 lbs. @ 5d. lb.
 Rad. Glycyrrh., English Ground, 1 cwt. @ 24/6 cwt.; 7 lbs. @ 3½ d. lb.
 Rad. Jalap. English Ground, 28 lbs. @ 1/11 lb.; 7 lbs. @ 2/- lb.
 Rad. Rhei E. I., English Ground, 1 cwt. @ 1/2 lb.; 28 lbs. @ 1/4 lb.; 7 lbs. @ 1/5½ lb.
Shellac (Orange), 1½ cwt. @ 74/- cwt.; 7 lbs. @ 9d. lb.
 Sodii Bromid. P.B.; 1 cwt. @ 1/7½ lb.; 7 lbs. @ 1/9½ lb.
 Turpentine (Best American), 1 gall. tins @ 3/10 each.
Ung. Acid. Boric. P.B., 28 lbs. @ 6d. lb.; Flav., 28 lbs. @ 4½ d. lb.
 " Ac d Carbol. B.P., 28 lbs. @ 8d. lb.; 7 lbs. @ 9d. lb.; 1 lb. @ 11d. lb.
 " Gallæ, P.B., 7 lbs. @ 1/- lb.; 1 lb. @ 1/2 lb.; c. Opio, 7 lbs. @ 3/3 lb.
 " Hydrargyri, B.P., 28 lbs. @ 1/11 lb.; 7 lbs. @ 2/- lb.
 " Hydrarg. Ammon. B.P., 28 lbs. @ 11d. lb.; 7 lbs. @ 1/2 lb.
 " Hyd. Nit. Dil. 7 lbs. @ 10d. lb.
 " Paraff. Alb., P.B., 28 lbs. @ 7d. lb.; 7 lbs. @ 8d. lb.; 1 lb. @ 10d. lb.; Flav., 28 lbs. @ 5d. lb.; 7 lbs. @ 6½ d. lb.
 " Resinæ, P.B., 28 lbs. @ 10d. lb.; 7 lbs. @ 11d. lb.
 " Sulphuris, B.P., 28 lbs. @ 7d. lb.; 7 lbs. @ 8d. lb.
 " Zinc Oxid. Benz. B.P., 28 lbs. @ 7½ d. lb.

*Minimum quantity at these prices: Home Trade, 8 Winchester Quarts assorted; Export, 12 Winchester Quarts assorted.

NOTE.—Only Terms Net Cash with order without discount, or orders accepted through London Merchants or Bankers.
Goods carriage forward; all packages free; Export cases extra.**ALLIANCE DRUG & CHEMICAL CO., LONDON.**

Office: 34 LEADENHALL STREET.

KINDLY DETACH THIS SHEET AND PLACE IT IN YOUR BUYING BOOK.

"LU-KU"



The Reliable
PREVENTIVE & CURE
for
**NASAL
CATARRH,
HEAD COLD,**
and
CATARRHAL DEAFNESS.

Sells Well.

RETAIL 1/1½ BOX.

On P. A. T. A. List.

**"LU-KU" ARCADE BUILDINGS,
BURTON-ON-TRENT.**

BAILEY'S HOT WATER BOTTLES.

VERY BEST RUBBER at lowest Prices,



Fig. 1.

Size.	Fig. 1 s.	Fig. 2 d.
10x 6	4	1
12x 6	4	7
10x 8	5	2
12x 8	6	0
14x 8	6	3
12x 10	8	8
14x 10	7	6
16x 10	8	2



Fig. 2.

W. H. BAILEY & SON,
38 OXFORD STREET, LONDON, W.

THE LIVERPOOL LINT CO.

MARK STREET MILLS,
NETHERFIELD ROAD NORTH,
LIVERPOOL,

MANUFACTURERS OF

LINTS,
BANDAGES,
COTTON WOOLS,
SURGEONS' TOW,
CARBOLIZED TOW,
SPLINT PADDING,
WADDINGS, &c., &c.

As supplied to Home and Foreign Governments.

"IMPERMIETTE" (Waterproof).
"IMPERMIETTE" BED SHEETING.
"HEALTH" CHEST PROTECTORS.
"YULNOPLAST."

ABSORBENT
TISSUE.



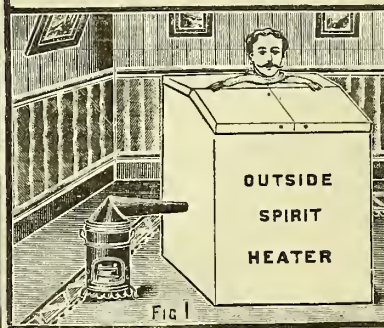
FIRST FIELD
DRESSINGS.

Telegrams:

TRADE MARK

"LINT LIVERPOOL."

"HOME" BATH CABINETS



50 TO 65
per cent.
PROFIT
for
the Trade.
For particulars
apply—

RILEY BROS.
Ltd.,
BRADFORD

USE BEST BOTTLES ONLY.
WILL YOU PLEASE TRY OURS.

I. ISAACS & CO.'S REDUCED PRICES

106 MIDLAND ROAD, ST. PANCRAS, LONDON, N.W.

The New Shape, Oval Fronted Bottles, 6 ounce size, 8/6 per gross.
A Sample Free on Application.

FIRST QUALITY.
3 & 4 6 & 8 12 16 ounce. } Round edges, plain or
9/- 10/- 15/- 20/- per gross } graduated, quinine tinted.

SECOND QUALITY.
3 & 4 6 & 8 12 16 ounce. } Round edges, plain or
7/6 8/6 12/- 18/- per gross } graduated, clear blue tinted.

PANEL BOTTLES (New Series), Green or Blue Glass.

Good Quality.
2 2½ 4 6 8 10 ounce. } In ordering please say if
7/- 7/6 8/- 9/- 9/6 12/- per gross } green or blue is required.

WHITE PHIALS—GOOD QUALITY.
¾ 1 1½ 2 ounce. } Plain or teaspoons.
3/6 4/- 4/6 5/6 per gross }

Six gross and upwards, assorted or otherwise, sent carriage paid to any
address in the United Kingdom. Smaller quantities not carriage paid.

Established 120 years. Bankers: London County and Westminster Bank.

TOOGOOD'S TOOTH - POWDER BOTTLES AND CANISTERS.



**Fig. 2308. Bottle,
White Glass.**

2 oz. 3 oz. 4 oz.
26/- 28/- 31/- gross



Fig. 2142. Canister.
4½ in. high, 1½ in. diam.
30/- gross.



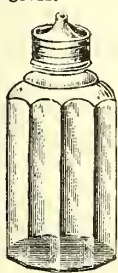
**Fig. 1473.
White Glass.**

3 oz. ... 48/- gross.



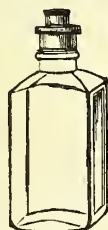
**Fig. 1847.
Opal Glass.**

2 oz. 3 oz. 4 oz.
34/- 36/- 40/- gross.



**Fig. 2204.
Octagon.**

3 oz. ... 28/- gross.



**Fig. 2207.
White Glass.**

2 oz. 4 oz.
27/- 34/- gross.
Actinic Green.
2 oz. 4 oz.
30/- 37/- gross.



**Fig. 185.
White Glass.**

2 oz. 3 oz. 4 oz.
34/- 36/- 40/- gross.



**Fig. 1397.
White Glass.**

2½ oz. ... 36/- gross.

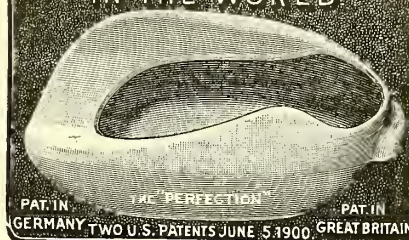
Subject to our Usual Terms.

WILLIAM TOOGOOD, Limited,
77 Southwark Street, S.E.

MEINECKE & COMPANY

PERFECTION COMBINED BED AND DOUCHE PAN

THE MOST COMFORTABLE
AND SANITARY BED PAN
IN THE WORLD



PAT. IN GERMANY TWO U.S. PATENTS JUNE 5, 1900, GREAT BRITAIN

MADE BY
GRIMWADES LTD.
STOKE ON TRENT
ENGLAND

This improved Pan is comfortable, because it is "anatomically correct in shape"—it is shaped to fit the body. It causes no uncomfortable pressure against the spine as the old style Bed Pans do.

The "Perfection" Pan has no spout, but instead has a wide open space at one end from which the contents are emptied. It has no corners or crevices in which matter can lodge, and because of its open construction it may be readily flushed out. It is so constructed that almost the entire interior is open to view.

It is a combined Bed and Douche Pan—intended to be used for both purposes.

The "Perfection" Bed and Douche Pan has come into world-wide use. It has been adopted by more than 2000 Hospitals throughout the United States, including the Hospitals of the U. S. Army and the U. S. Navy. Physicians and Trained Nurses everywhere recommend it to their patients.

Made Only in Porcelain

RETAIL PRICES

No. 1 Standard Size 8/6
No. 2 Small Size 6/6

USED IN LEADING BRITISH HOSPITALS

Grimwades Limited Accept Orders
Only from Wholesalers

Retail Dealers Supplied by all the
Leading Wholesale Chemists and
Druggists' Sundries Houses.

PAT'D IN GREAT BRITAIN
MAY 24, 1900

HARVEY'S GREAT REMEDIES FOR THE HORSE WITH THE ADDED REMEDIES (Protected Prices)

HARVEY'S ACONITE POWDERS,

For Chronic Cough, Broken Wind, Roaring, &c.

HARVEY'S WORM AND CONDITION POWDERS.

HARVEY'S WATTS' EMBROCATION, or Curb Bottle.

HARVEY'S WATTS' RED LOTION, For Wounds.

HARVEY'S HAIR RESTORING OINTMENT.

HARVEY'S EDOS, or Tasteless Purging Powder.

THE ADDED REMEDIES:

HARVEY'S KOPPOS POWDER,

For Lymphangitis or Weed, and Inflammations generally. In Tins, 5/- and 10/- each.

HARVEY'S THRUSH SPECIFIC.

In Tins, 1/9 and 3/- each.

HARVEY'S HOOF OINTMENT.

In Tins 3/- and 6/- each.

Also

HARVEY'S HAIR RESTORER (Human),

A successful modification of the Veterinary Preparation. In Pots, 2/- each.

The REMEDIES may be obtained of all the leading Druggists' Sundries Houses.

HARVEY & COMPANY, LTD., DUBLIN.

Increase your profits largely by selling



SANTOVIN
for
Sheep & Lambs

By Royal Warrant
to
H.M. THE KING.

Gold Medal
and
Diploma,
World's Fair,
1907.

The Standard Sheep Medicine and sure cure and preventive for Tapeworms, Husk, or Hoose, and worms generally in sheep and lambs. Sells in large quantities.

In cans (30 to 40 doses), 5/-; 1/2-gal. (90 to 120 doses) 13/6; and 1 gall. (180 to 240 doses), 25/- each.

(Each with dose bottle in receptacle on top.)

WALTON'S (late of Croydon) ROUP PILLS.

Cure all classes of Poultry, Game and Pigeons of Roup, Gapes, Colds, and other disorders of the Throat, Lungs, &c.; all inflammatory actions and Canker in Pigeons.

WALTON'S

TONIC PASTE.

Prevents disease in Poultry, Game, and Pigeons; cures Indigestion, Loss of Appetite, Diarrhoea, Crop (relaxed or bound), General Weakness and Debility.

Finest preparation known for preparing exhibition birds.

Pills and Paste in packages, 6d., 1/-, 2/6, 5/-, and 10/-.

Liberal terms. Effective Show Cards and attractive literature supplied, including useful treatise "Health for Sheep."

Sole Proprietors: **STEPHEN PETTIFER & SONS**

Only Address: **MALMESBURY, WILTS.**

Wholesale from all usual houses.

ELASTIC GUM SURGICAL INSTRUMENTS.



Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Oesophageal Instruments. Horse Catheters and Cattle Probangs. Wholesale and Export only. Price List from the Manufacturers.

MASON BROS. & CHAPMAN, 107 Whitecross St., LONDON, E.C.

LE BRASSEUR SURGICAL MANUFACTURING CO., Ltd

10HN BRIGHT ST., BIRMINGHAM, ENGLAND.

The Largest Manufacturers and Cheapest House

— FOR —

Surgical Rubber Goods, Rubber Urinals, Enemas, Spray Syringes, Supensory Bandages, Soluble Quinine Pessaries, Fin. Cones, &c.

PRICE LIST ON APPLICATION.

Works: Registered Telegraphic Addresses:
PARIS, FRANCE. "SURGICAL, BIRMINGHAM," "ANDESIR, PARIS"

Write To-day for Terms, we can Save You Money.

LONG'S NON-POISONOUS SPECIFIC. FOR SCAB IN SHEEP.

A certain and safe **DRESSING** where Dips have entirely failed, also for all Skin Diseases and Vermin in animals generally

Manufactured since 1848 by **CORRY & CO., Ltd.**, at their Bonded Chemical Works, Shad Thames, London, S.E.

Best terms and full particulars on application from the Trade.

BRILLIANT PLATE. "ALBATUM OR WHITE ROUGE"

GIVES A UNIQUE POLISH TO ALL SILVER, AND ELECTRO-PLATED GOODS.

In 6d. and 1/- Boxes, and Tins, 2/-

BRADLEY AND BOURDAS,

6 PONT STREET, S.W.

Handbills Free—

Will be immediately sent carriage paid to your address on receipt of a postcard. Keating's Powder has a ready sale throughout the year, and invariably gives satisfaction to your customer.

Thomas Keating,

50/52 Union St., London, S.E.

By Special Royal Warrants

To H.M. KING GEORGE V.



To H.M. QUEEN ALEXANDRA.

Jeyes' Disinfectants

As Used in the Royal Households, Stables and Kennels.

May be obtained in the form of

FLUID POWDER AND SOAP.

JEYES' FLUID (Non-Poisonous)—In Bottles, Tins, Drums, and Casks.

JEYES' POWDER—In Canisters, Packets, Bags, and Casks.

JEYES' SOAPS—In Bars and Tablets, for the HOUSEHOLD and TOILET.

JEYES' SPECIAL FLUID—CYLLIN—The strongest fluid Disinfectant on the Market. Its germicidal efficiency is guaranteed to be thirty times that of Carbolic Acid, and eighty times that of Formalin, when tested against a vigorous culture of the plague organism (*B. pectis*). Cyllin is further guaranteed to be AT LEAST ten times less toxic than Carbolic Acid. In Bottles, Tins, Drums, and Casks.

CYLLIN PREPARATION.

Cyllin (Medical)—Cyllin Palatinoids—Cyllin Inhalant—Lano-Cyllin—Cyllin Dusting Powder—Cyllin Syrup—"Cyllinettes" (Sanitary Towels)—Cyllin Pastilles—Cyllin Lint, Wool, Gauze, Gauze Tissue, Cotton Fibre, Cyllin Obstetrical Lubricant.

PRICE LIST AND ATTRACTIVE SHOW CARDS ON APPLICATION.

Jeyes' Sanitary Compounds Co., Ltd., 64 Cannon Street, London, E.C.

TO WHOLESALE BUYERS AND SHIPPING MERCHANTS ONLY.

Hand or Machine Made.

To suit all Climates.

Absolute Purity of Contents.

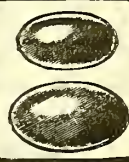
Best Finish.



Capsules
JOHN TYE & SON,
Manufacturing Chemists,

TYE'S

& Perles
Packington Street,
LONDON, N.



ABSORBENT LINTS

BANDAGES, COTTON WOOLS, &c., &c.

Tel. Add.: "LINT PRESTON."
Tel. No.: 323 PRESTON.

WHOLESALE ONLY.

A B C Code,
5th Edition.

Goods supplied in various qualities.

Apply for samples and prices.

VERNON & CO., LTD., Penwortham **PRESTON.**
Mills,

Agent: T. J. SANDERSON, 11 King William St., London, E.C. Tel. No.: 2235 Central.

DISPENSING BOTTLES, &c.



We are now offering above of first-rate quality,
:: in original packages, at very low prices. ::
SAMPLES & PRICES WILL BE SENT ON APPLICATION.

E. YOULDON, LTD.

Carter Street, Maplin Street, MILE END, LONDON, E.

ESTABLISHED 1840.

Telegrams: "Youldon London."

Telephone: East 132.





"St. JOHN'S GATE"

TRADE MARK
AND

TRADE "OLYMPIC" MARK

indicate BRANDS of

Absorbent Cottons, Lints, Bandages,

Issued by **FASSETT & JOHNSON,** 86 Clerkenwell Rd.,
LONDON, E.C.

PRICE LIST AND SAMPLES ON APPLICATION.



86 CLERKENWELL ROAD.

TRADE MARK.]



Telegrams:
"RENILREB LONDON."

Telephones:
LONDON WALL 507.
CITY 998.

ESTABLISHED 1850.

For *STERLING VALUE* in

**HOT WATER BOTTLES
CHEST PROTECTORS
BODY BELTS**

WRITE FOR SAMPLES AND QUOTATIONS TO

ARTHUR BERLINER,

Surgical Dressing Manufacturer,

15 & 17 WORSHIP STREET, } **LONDON, E.C.**
2a TABERNACLE STREET,

Orders promptly executed
from Stock.


**LINTS,
BANDAGES,
GAUZES,
TISSUES,
CELLULOSE,
WOOLIOSE,
AND
SUNDRIES.**

RENDELL'S

SOLUBLE QUININE PESSARIES.



THE WORLD-WIDE REPUTATION that these Pessaries have obtained since their invention by W. J. Rendell in 1885 has induced unscrupulous persons to place upon the market worthless and injurious compounds, with colourable imitations of W. J. Rendell's labels. To distinguish the genuine Pessaries from these fraudulent concoctions, see that the Registered Trade Mark and Number, in **RED INK**, are upon each box thus:

Registered
Trade Mark, 
without which
none are genuine.
No. 182,688.

W. J. Rendell
No. 182,688.

Registered also in Australia, India, The Cape, The Argentine, Germany, &c.

IMPORTANT NOTICE AND CAUTION.

Several injunctions in the High Court of Justice having already been obtained (reports of which have appeared in "THE CHEMIST AND DRUGGIST"), W. J. RENDELL'S SOLICITORS are instructed to take proceedings against all persons (Makers or Vendors) fraudulently using the name of "W. J. RENDELL," "RENDELL," or any colourable imitation thereof in connection with Pessaries NOT manufactured by

W. J. RENDELL,

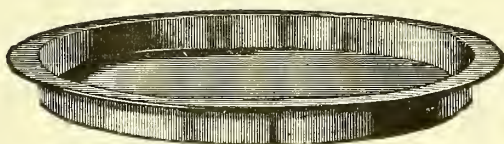
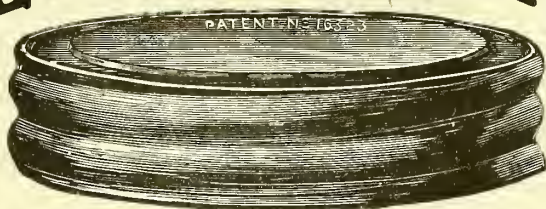
INVENTOR AND SOLE MAKER,

15 CHADWELL STREET, CLERKENWELL, LONDON, E.C.

Telegraphic Address:
"FISH LONDON."
A B C Code,
4th & 5th Edition.

Telephone Number:
5924 HOLBORN
(3 lines).

JOHNSON & JORGENSEN, Ltd.



Our Patent
Screw-capped
Up-to-date

MALT JARS

Round & Square,



All sizes in **BEST
AMBER** and **WHITE
FLINT GLASS** are now
being used by all the
Leading Houses.



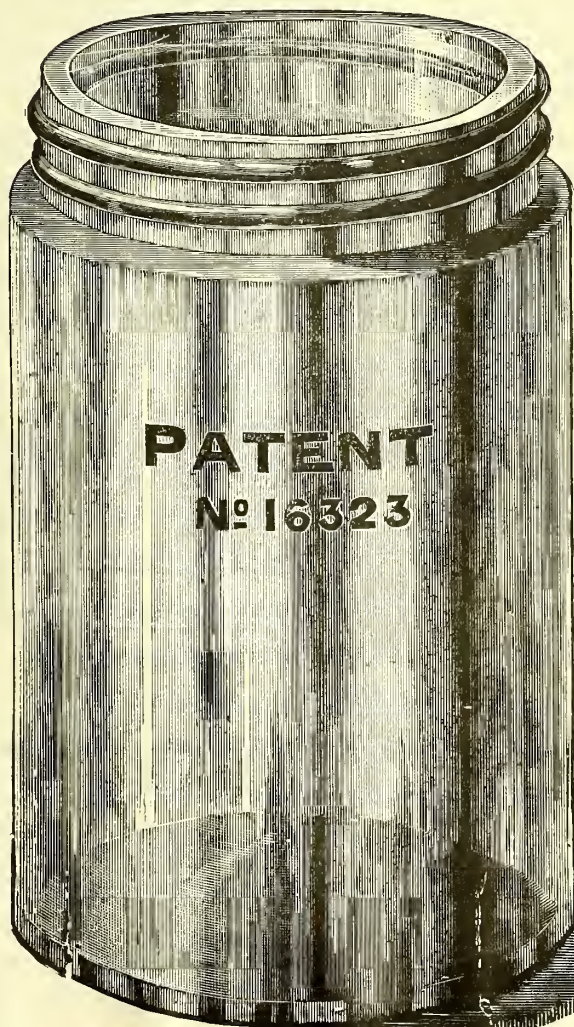
**LARGE STOCKS
ALWAYS ON HAND
TO MEET IMME-
DIATE DEMANDS.**



**SAMPLES & PRICES
ON APPLICATION.**



**ILLUSTRATED
CATALOGUES
FREE,**



Also Manufacturers

— OF —

**Medicals,
Perfume Bottles,
Screw-capped
Pomades,
Show Glasses,
Druggists' Sundries
Shop Bottles & Jars**

— WITH —

Vitrified Labels.



BOTTLES

of every description.



Registered Offices & Showrooms:

**26-27 FARRINGTON ST.,
LONDON, E.C.**

And at—

**13 WEST CAMPBELL ST.,
GLASGOW.**

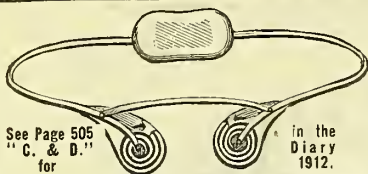
**406 CORN EXCHANGE BDCS,
MANCHESTER.**

Also at—

LEEDS & BELFAST.



**American Patent
for this closure
for sale.**



See Page 505
"C. & D."
for

in the
Diary
1912.

THE "SPIRAL SPRING" TRUSS.

FOR ALL PARTICULARS
APPLY TO THE INVENTORS AND MAKERS,

WILLIAM COLES & Co. 5 SACKVILLE STREET,
PICCADILLY, LONDON.



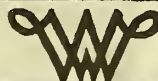
INDIA RUBBER

(Red Mineralized and Arabesque).

SURGICAL, CHEMICAL, DOMESTIC ARTICLES, SYRINGES, ENEMAS, WATER BEDS.

Manufacturers of every description of **INDIA RUBBER**, Wholesale & Export only.

WM. WARNE & CO., Ltd., 29 Gresham Street, LONDON, E.C.



[See p. 151, July 29, 1911.]



CHLORIDE OF LIME

In Packets, $\frac{1}{2}$ lb., $\frac{3}{4}$ lb., and 1 lb.; also in Tins, 1 lb., and upwards.



TRADE MARK.

THE UNITED ALKALI CO.

LIMITED,

Greenbank Works, ST. HELENS, LANCs.

50% PROFIT.

GRE-SOLVENT

(Grease Solvent).

For Crimy Hands, for Pots and Pans.

A DAINTY PASTE IN HANDSOME TINS.
ANTISEPTIC AND BENEFICIAL TO THE SKIN.
WONDERFULLY USEFUL IN THE HOUSEHOLD.

10/-

Special introductory Parcel to retail at
15/-, with free samples. Showcards
and printed matter bearing your name.

PERKIN & CO., Ltd., Gre-Sol Works, LEEDS.

INDIA-RUBBER HOT-WATER BOTTLES

GUARANTEED HIGHEST
GRADE QUALITY

LATEST REDUCED
PRICES

SHEATH BROS.,
87 City Rd., London, E.C.

ESTABLISHED OVER 60 YEARS.



The Original and only Genuine

Allcock's

POROUS PLASTERS

A REMEDY OF 60 YEARS' STANDING.

Allcock's Plasters
Allcock's Corn and
Bunion Plasters
Brandreth's Pills

The
Three
Rollables.



A HANDSOME
SHOWCARD
will be sent
free of cost
and post paid
on application.

ALLCOCK . . .
MANUFACTURING
COMPANY . . .

22 Hamilton Sq.,
Birkenhead.

"Sold all round the World."

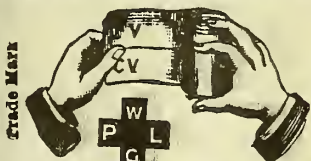
The New Fast Edge. CREPE VELPEAU BANDAGES

THE ONLY ORIGINAL

Introduced by

W. GIMBER in 1892.

AN ELASTIC BANDAGE
Containing an Indian rubber.
Superseding Elastic Stockings,
Wraps, Bandages, and at half the
cost. Three sizes—about 2, 2½
and 3½ inches wide.



CREPE VELPEAU ABDOMINAL BINDERS.

Useful after many Abdominal Operations, and for ladies after
confinements. Two sizes—8 and 11 in. wide.

CAUTION.—Beware of fraudulent and useless imitations, and reject
all Bandages not bearing the above Trade Marks on the Wrappers.
Wholesale of the original Importers and Introducers.

W. GIMBER & SON, Surgical Bandage and Instrument Makers,

44 QUEEN'S ROAD, PECKHAM, LONDON, S.E.

And of all Wholesale Druggists, Chemists, Surgical-Instrument Makers, &c.

Telephone New Cross 1601. Descriptive Circular and Price List on Application.

FINEST **BLACKS** AND
COLOURS

(ALL SHADES).

for

CONFECTIONERY
(Harmless)
MINERAL WATERS
(Acid-proof)
GELATINE
LEATHER
SOAP
VARNISH
BOOT POLISH
WRITING INK
ENDORISING INK
RULING INK
STENCIL INK
PRINTING INK
WOOD STAINS
SIZE
COTTON
WOOL
SILK
COIR YARN
JUTE
&c. &c.

Soluble in

WATER SPIRIT
OIL TURPS
WAX BENZOLINE
GLYCERINE NAPHTHA
PETROLEUM CREOSOTE
and
IN FACT ANYTHING.

HOUSEHOLD DYES.
MARKING INK.

ETERNITE

A beautiful Stain and absolute
preventive of decay in wood.

Send for booklets, price lists, patterns and samples to—

WILLIAMS BROS. & CO.
Hounslow, Middlesex.

FRED^K. FINK & CO.

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES: Gums Arable and Tragacanth as Imported or finely powdered—Dextrine, Camomiles, Honey. Waxes of all kinds for Boot Polishes, &c.

Dentistry

FOR CHEMISTS & DENTISTS

Write for
Price List

A.G. FENTIMAN

190, BISHOPSGATE, LONDON, E.C.

CORN EXTERMINATOR



NEVER
FAILS.

Ingenious Instrument. Anyone can use. Highest surgical testimonials. Post free, 1s. 1d. **CORN, BUNION, CHILBLAIN, AND RHEUMATIC OINTMENT** absolutely cures Tender Feet, Soft or Hard Corns, Enlarged Joints, Piles, &c. Post free, 1s. 2d.

Mr. CARDNER, Chiropodist, Spécialité—Nails, 55 Regent Street, W.

J. W. PINDAR & CO., Druggists & Engineers.
PILL MACHINERY, D.A. Tincture Presses, Emulsifying and Mixing, Corking, Mixing and Sifting Machines, Boiling Pans.

GRINDING MILLS.

TABLET-COATING MACHINES

1 ft., 6 in., 2 ft., 2 ft. 6 in., and 3 ft. Copper Pans.
New Illustrated Price List on Application.

BROCKLEY, LONDON, S.E.
Please Note our Telephone Number: NEW CROSS 1005.

MUSTARD PLASTERS

(MUSTARD LEAVES)

With any wording and in any packing desired.

INHALERS and LOZENGES.

JULIUS RUEFF,

PFUNGSTADT (HESSE), GERMANY.

TO LET.

"SILVERY WHITE GUTTA PERCHA ENAMEL"

TOOTH STOPPING

P. A. STEVENS, Surgeon-Dentist,

Mansfield Rd., S. Hampstead, N.W.

Sole Proprietor & Manufacturer.

TRADE MARK. Registered No. 3745. Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name. A sample box of 8d. sticks sent post free for 12 stamps. Price list and sample free.

RUBBER STAMPS

CHEMISTS' STAMPS,
SEALS AND STENOGRAPHS
A SPECIALITY

C. D. RICHFORD,
8 & 9 Snow Hill,
LONDON, E.C.

Full Illustrated Lists Free. Special Terms to Chemists.

PRECIPITATED CHALK.

LIGHTEST, WHITEST AND PUREST QUALITIES

APPLY TO—

AUG. LEVERMORE & Co., Ltd, 9/10 Qt. St. Helens,
LONDON, E.C.

TELEGRAMS: "LEVERMORE LONDON." TELEPHONE: 4513 CENTRAL.

OSCAR WATTENBACH,

5 LEONARD STREET, FINSBURY, LONDON, E.C.

Telegraphic Address: "WATTENBACH LONDON."

WHOLESALE AND EXPORT ONLY.

DRUGGISTS' Sundries. Surgical Rubber Goods. Enemas, Injection Bottles, Douches and Syringes of every description. Rubber Sponges, Feeding Bottles, Baby Comforters. Surgical Glass, and Enamelled Iron Ware. Trusses, Bandages, Glass Bottles used by Druggists, Perfumers, &c. Specialities, and Sundries of every Description.

BOX YOUR SPECIALITIES.

Customers like to buy goods neatly packed in attractive boxes, and we are in business to help in this direction.

WE MAKE BOXES for Toilet Soaps, Fullers' Earth, Face Powder, Baking Powder, Custard Powder, Toilet Powder, Shaving Soaps, Insect Powder. Postal Tubes, Tubular Cases, Corrugated Paper, Metal-edged Leatherboard Boxes and all kinds of Fancy Boxes, Celluloid Boxes, &c. &c.

HUGH STEVENSON & SONS, Ltd., Garratt Works, SUMMERS TOWN, S.W.
Telephones: 11 Wimbledon; 157 Battersea. Established over Half a Century.

CHAS E. WOOD, 9 Mincing Lane,
LONDON, E.C.

Telegrams: "Venientis London." Telephone: 5599 Avenue.

PURE FRENCH STARCH.
Specialties { WHITE OIL SOAPS 60° & 72° (Castile),
" GREEN OLIVE OIL SOAPS.
" OLIVE OILS, EDIBLE & B.P.

Sole Agent for "CROWN" Brand Pure STARCH.

GEORGE HAYNES & CO.,

Hampstead Cotton Mills, Stockport.

MANUFACTURERS OF

BLEACHED AND ABSORBENT COTTON WOOLS, SURGEONS' AND HOSPITAL LINT, BANDAGES, &c., &c.

FIVE GOLD MEDALS, FIVE SILVER MEDALS, AND DIPLOMA OF HONOUR.
The Highest Awards Given to any Cotton Wool or Lint Manufacturers.
Telegraphic Address: "HAYNES STOCKPORT."

IRISH MOSS CARRAGEEN
(*Chondrus crispus*.)

Fucus Vesiculosus. Oak Moss.
and Gentian Root.

Particulars from

J. W. CUMMING, CLONLIFFE, DUBLIN.

Telegrams: "Cumming Dublin." Code: A B C 5th Edition.

THE SCHOLL "FOOT-EASER"

German Silver, leather covered, will add fresh profits and make new satisfied customers for your shop. It is now being advertised in over 300 publications throughout the United Kingdom, and with the special advertising service that we supply with one doz. assorted orders, many sales will result.

Write for particulars to-day.

The SCHOLL MFC. Co. Ltd., 5 Manchester Avenue, Aldersgate St., E.C.



KRUSCHEN SALTS,

produced by evaporation from the celebrated mineral springs. A perfect diuretic aperient for the treatment of Rheumatism, Gout, Constipation and Inactive Liver. Liebig's Analysis: Soda Sulph., Soda Chlorid., Soda Phosph.

Magnes. Sulph., Magnes Chlorid., Potas. Sulph., Potas Chlorid.

Minimum Retail Price. 1/6.

Wholesale, 13/6 per doz. net.

Carriage Paid.

P.A.T.A. Conditions.

E. GRIFFITHS HUGHES, Chemist,
17 Deansgate, Manchester.

DENTISTRY

(Mechanical).

EXPERT WORKMANSHIP. PROMPT SERVICE.
POPULAR PRICES. GUARANTEED MATERIALS.

"Dentistry for Chemists" post free. "Everyday Dentistry," 3/6.

F. C. WARDALE & CO., 132 High Street North, East Ham.
Tel. No. East Ham 174. Tel. Address: "Eladraw London."**DENTISTRY FOR DENTISTS**

by A. J. FENTIMAN, Dentist (Fentiman & Co.).

Practical Dentists in Gold, D.A., Tubes, Crowns, Gum Sections,
Vulcanite, Celluloid, Strengthened Rubber, Reg. Cases (Angles),
Obturator, &c.Telephone: 9977 London Wall. Telegrams: "Lullingly London."
Postal—East Smithfield, Tower Bridge. Established 1888.

NO OTHER ADDRESS.

ARE YOU GETTING THE CALL ?NOW ADVERTISED IN "FARMER & STOCKBREEDER,"
THE "GAMEKEEPER" & OTHER COUNTRY JOURNALS**"RATTO"** (Regd.) A Special Bait for Killing Rats,
Moles and all Vermin.

Agents required all over the World.

FOR HOME & EXPORT—IN LARGE TINS 6d., 1/-, 2/6 & 5/- (RETAILERS' PROFIT 80%)

Write for Special Terms: Export to ALL WHOLESALE HOUSES.

SOLE PROPRIETORS—F. FARMER & CO., 1A COLLEGE LANE, HOMERTON, LONDON, N.E.

PURE PEPPERMINT OIL

Excellent quality and very strong.

Grown and Distilled by

M. & A. C. BING, LAVENDER DISTILLERY,
GROVE FERRY, KENT.**VAN HORN & SAWTELL**

— LONDON & NEW YORK — MAKERS OF

K-Y LUBRICATING JELLY

IN COLLAPSABLE TUBES, AND OF

"Van Horn" STERILE SUTURES & LIGATURES
IN GLASS TUBES — PRICES ON APPLICATION.

31-33 HIGH HOLBORN, W.C.

TOBACCOS ! CIGARS ! CIGARETTES !Every known Brand at Manufacturer's own List
Prices. Endless variety of Tobaccoists' Fancy
Goods & Shop Fittings. The Trade only supplied.
Opening orders a Speciality. Send for Price List.SINGLETON & COLE, Ltd., Cannon Street, BIRMINGHAM,
AND BRANCHES.PUT IT
in a **TIN BOX** and write
your wants
to—**SHIRLEY BROTHERS LTD. TIN BOX**
SPECIALISTS,

WHITECROSS WORKS, LONDON, S.E.

Over 4,000,000 Tins in Stock; Plain and Decorated.

**Papier Poudre****POPOEA PREPARATIONS**

Good Profit to Chemists, &c.

Price List from

PAPIER POUDRE, LTD.,
23 Somerset St., London, W.**ALTRINCHAM RUBBER CO.****GLASS LID SHOWCARD BOXES.**Containing ordinary shape and
Hygienic Feeding Bottle Teats.

Trade Price, 5/- Retail for 10/- 100% profit.

60, Stamford New Rd Altrincham.

PERBORIN.

Pure Sodium Perborate.

HIGHEST Percentage Active Oxygen.

PRESCOTT & CO., 63 Corporation St., Manchester.

FLYCATCHERS.

SHARK, SILVER & SCOUT.

Send for Sample and Prices, they will convince you.

DEANSMEERE MANUFACTURING CO.,
HIGH ST., STOCKPORT, ENGLAND.**First-Class Mechanical Dentistry.**Reliable workmanship. Popular prices. Moderate charges for gold.
D.A., Tubes, Seamless Gold Crowns, Sections, Vulcanite, &c. Ash's
and D.M.Co. Teeth and Rubber guaranteed. Punctuality strictly
observed. List free. Trial case solicited. Gold and D.A. work a
speciality. Special cheap rates for show case pieces. 16 years' ex-
perience of first-class mechanical dentistry.

E. C. HALDER, 46 New Cross Road, LONDON, S.E.

ARE YOU GETTING THE BEST RESULTS?

If NOT, try

H. GARTHWAITE,

The Old Established Dental Mechanic,

200 MANSFIELD ROAD, NOTTINGHAM.

Write at once for Price List.

WINTER LINES IN LARGE SELECTIONLANOLINE, COLD CREAMS, CAMPHOR ICE,
EUCALYPTUS & CAMPHOR ICE, LIPSALVE, MENTHOL SNUFF,
MENTHOL & EUCALYPTUS SNUFF, MENTHOL INHALERS, ETC.**THOS CHRISTY & CO.**
4, 10 & 12, Old Swan Lane, London, E.C.**CHAMOIS
WASH LEATHERS.**

HOUSEMAIDS' CLOVES. GARDENING CLOVES. MOTOR CLOVES. TOILET CHAMOIS.

Round, Square, Oval. Packed in neat Boxes. Special discounts
for quantities. Write for Sample Boxes or Kips on approval.

THE NORTH OF ENGLAND CHAMOIS CO. Ltd. Manufacturers, Newcastle-on-Tyne.

IN BOXES (12 skins)

From 13 x 12 to 32 x 32
Prices 4/- to 32/6 doz.

IN KIPS (30 skins)

From 8 x 9 to 32 x 32
Prices 4/6 to 82/- Kip.

Worshipful Company



of Spectacle- Makers.

EXAMINATIONS IN GENERAL OPTICS AND SIGHT TESTING are held twice yearly, May and November, for success at which Diplomas are granted. The next Examination will be held at the St. Bride's Institute, Ludgate Hill, E.C., and at the City of London School, Victoria Embankment, E.C., during the week commencing May 6th next. Full Syllabus, Regulations and Entry Form may be had on application to the Clerk of the Company. Three Prizes are awarded on the recommendation of the examiners to those candidates who obtain a high percentage of marks.

Col. T. DAVIES SEWELL, F.R.A.S.,
11 Temple House, Temple Avenue, E.C.

THE LONDON COLLEGE OF PHARMACY

With which is incorporated the South London School of Pharmacy
(founded by Dr. Muter in 1868).

Principals: { HENRY WOOTTON, B.Sc. (Lond.)
ARTHUR KIRKLAND, Ph.C.

MINOR.—The next **Complete Course** of Lectures, Classes, and Practical Work begins on **JANUARY 3rd**. Fee:—9½ guineas to April, 17 guineas to July.

MAJOR COURSE begins on **JANUARY 3rd**. Fee:—6½ guineas to April, 12½ guineas to July.

EVENING CLASSES (MINOR and MAJOR) begin on **JANUARY 4th**. Fee from 1 guinea per term.

APOTHECARIES' HALL COURSE begins on **JANUARY 29th**. Fee: 5½ guineas one term, 10 guineas two terms.

A larger number of Students have passed the Pharmaceutical Examinations from the London College since its establishment than from any other School.

For Prospectus, &c., apply to The Secretary, LONDON COLLEGE OF CHEMISTRY AND PHARMACY, 361 Clapham Road, London, S.W.

GLASGOW SCHOOL of PHARMACY,

PLYTHWOOD CHAMBERS, 180 WEST REGENT STREET, GLASGOW.

Principal: JOHN LOTHIAN,

Pharmaceutical Chemist, Medallist of the Pharmaceutical Society, &c.

Assistants—MALCOLM IRVINE, Pharmaceutical Chemist;
JAMES TULLOCK, M.A.

**Day & Evening Classes for Preliminary,
Minor & Major Exams.**

COMMENCE, JANUARY 8th, 1912.

EXAMINATION RESULTS, SESSION 1910-11:—Minors, 29 (four ladies); Majors, 2. Mean Average Pass, 87 per cent. Highest Pass 100 per cent. on two occasions.

BIRMINGHAM & MIDLAND

**COLLEGE OF CHEMISTRY,
PHARMACY AND BOTANY**

45 NEWHALL STREET, BIRMINGHAM.

Principal—C. L. SCOTT, Member of the Pharmaceutical Society

Next Term begins on January 4th, 1912.

Full Time Afternoon and Evening Classes.

Full Particulars on Application.

THE WESTMINSTER COLLEGE

OF CHEMISTRY, PHARMACY AND BOTANY,

402 Clapham Road, London, S.W.

The most successful School in England.

THE NEXT COURSE WILL COMMENCE ON JANUARY 5th.

N.B.—The College being quite full no more students can be received this term.

Students who are unable to leave business for the present should take a 3 or 6 months' Course of Lessons under

WILLS'S UNIVERSAL POSTAL SYSTEM, FEE £1 1s.

(Major, Minor, Preliminary, or Apothecaries' Hall.)

For Prospectus, Call, Write or 'Phone to

Mr. G. S. V. WILLS, Ph.C., Principal.

THE BATH & WEST OF ENGLAND

COLLEGE of Chemistry & Pharmacy.

DAVID J. WILLIAMS, F.C.S., Ph.C., Silver Medallist, Principal.

DAY CLASSES.

150	— RESULTS —	150
Successes	AVERAGE for 4 years, 80 per cent.	Successes
in	APRIL 1911, 100 per cent.	in
4 Years.		4 Years.

PREPARATORY POSTAL TUITION A SPECIALITY.

Distinctions.—1908, Fairchild Prize, Mr. B. Hall; 1909, Fairchild Schol., Mr. B. Hall; 1910, Fairchild Prize, Mr. C. Hughes; 1911, Mr. W. Cooper.

Ten per cent. reduction in College fees to Correspondence Students on entrance.

For Terms and Prospectus apply The SECRETARY,
Bath & West of England College of Chemistry & Pharmacy
6 Cleveland Place East, BATH.

"Oni heuir ni fedir."

THE LIVERPOOL SCHOOL OF PHARMACY

(Recommended by Liverpool Chemists' Association).

18 COLQUITT STREET, LIVERPOOL.

Principal—H HUMPHREYS JONES, Ph.C., F.C.S.

THE MOST SUCCESSFUL SCHOOL IN THE KINGDOM.

Next Term Commences Wednesday, Jan. 3.

Part Time Class for Beginners ... Wednesday, Jan. 3.

" " " " Advanced Students ... Jan. 2.

Write for PROSPECTUS, post free, from Principal.

CLINICAL THERMOMETERS.

Best Quality at Lowest Prices

WRITE FOR PRICE LIST.
40 DIFFERENT KINDS.

Special Quotations to Wholesale Buyers

THE
"MATER"

LENS FRONT (Regd.)

CLINICAL THERMOMETER.

P.A.T.A.

MERCURY COLUMN SEEN AT A GLANCE

Made in Two Rapidities, 1 Minute and $\frac{1}{2}$ Minute.

New Price List of Thermometers for
every purpose, post free.

PERKEN, SON & CO. ^{LTD.}

ESTABLISHED 1852.

Contractors to H.M. Government,
29 Hatton Garden, LONDON.



LENS MEASURE

FOR MEASURING

Spherical and Cylindrical Lenses.

Price **17/6** each post free.

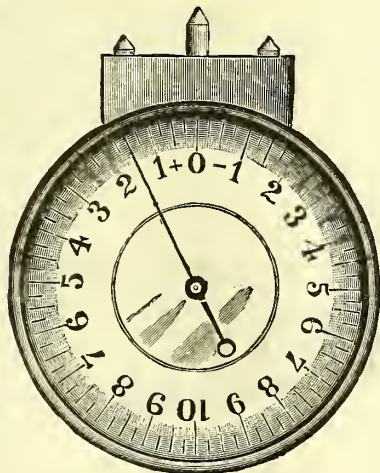


Illustration shows instrument exact size.

Manufactured and Sold by—

BOTWRIGHT & GREY,

Spectacle and Eyeglass Makers,

13 & 14 Spencer Street, Clerkenwell,
LONDON, E.C.



Books for Pharmacists

THE SPATULA.—The handsomest and most practical pharmaceutical monthly journal in the world. It is beautifully illustrated, filled with practical articles, and will help you to make money. Subscription, 5s. 6d. post paid. Sample copy free.

1,000 WAYS AND SCHEMES TO ATTRACT TRADE.—This book is the result of over five years of observation and labour, and describes more than a thousand ideas that druggists and other tradesmen have successfully put into practice to increase their sales. Many of them have transformed losing businesses into profitable ones. Almost any one of them will bring you larger business and give you a bigger income. 203 pages 9 $\frac{1}{2}$ x 7 and 120 illustrations. Printed on the best of white paper and bound in handsomely ornamented cover. Price, 4s.; with THE SPATULA 1 year, 8s.

ONE THOUSAND FORMULAS.—A compilation giving the practical working druggist full information about the making of one thousand of the most common and saleable preparations by L. W. Marshall. Price 3s.; with THE SPATULA 1 year, 7s.

SPATULA VETERINARY FORMULARY.—A collection of practical formulas for all diseases common among horses, cattle, swine, poultry and dogs, by L. W. Marshall. 2s.; with SPATULA 1 year, 6s.

TOILET PREPARATIONS.—A treatise on the manufacture of Casein Massage Creams, Complexion Creams, Cold Creams and Face Creams: Powders, Toilet Lotions, Campher Ices, Bath Tablets, and other similar preparations, including hundreds of the latest and best formulas. Compiled and edited by L. W. Marshall. Price post paid, 2s.; with THE SPATULA 1 year, 6s.

SPATULA HERB BOOK.—A classified list of Medicinal Herbs, giving botanic names and common names, with properties of each. A concise and practically complete list. Arranged alphabetically under both the scientific and the common names, so any herb may be instantly found. Price 2s.; with SPATULA 1 year, 6s.

EXTRACTS AND PERFUMES.—A treatise on the most practical methods for the manufacture by the retail or wholesale pharmacist of Flavouring Extracts, Colognes, Toilet Waters, Perfumes, Sachets, Fumigating Pastilles, &c., together with several hundred tested and workable formulas by Prof. W. L. Scoville and other authorities. Cloth, 4s. With SPATULA 1 year, 8s.

500 SPATULA FORMULAS for the making of Common Remedies, Perfumes, Soaps, Tooth Powders and Washes, Hair Dyes, Cosmetics, Colognes, Liqueurs, Cements, Glues, Mucilages, Blackings, Corn Cures, Rat and Vermin Poisons, Extracts, Fireworks, &c. Price 2s.; with SPATULA 1 year, 6s.

SPATULA LABEL BOOK.—For shop use, comprising labels for practically all the Drugs, Chemicals, and Preparations in the Pharmacopoeias, and for a large number of unofficial articles, utensils, apparatus, &c.; over 2,000 labels. Price 4s.; with SPATULA 1 year, 8s.

SPATULA SODA-WATER GUIDE.—Third Edition. Entirely rewritten and brought right up to date. Nearly 2,000 formulas and subjects. Standard American authority on all kinds of fountain drinks. 4s.; with SPATULA 1 year, 8s.

HOW TO MAKE TABLETS.—By Frank Edel. A treatise on the manufacture by retail druggists of all kinds of Compressed Tablets, together with a large number of practical formulae. 1s.; with SPATULA 1 year, 6s.

15,000 FORMULAS.—A new revised edition of the "Cyclopedia of Receipts." By A. A. Hopkins, Query Editor of the *Scientific American*. Probably the most practical and valuable collection of formulas and receipts ever published. Besides the receipts there is a vast amount of information on various subjects. 8 pp. illustrated circular giving contents free. Price 21s.; with THE SPATULA, 1 year, 23s.

PRICELESS RECIPES.—3,000 secrets, 368 pages. A book of recipes, and nothing but recipes. Not a cook book. Silk cloth finish. Post paid, 3s.; with THE SPATULA 1 year, 7s.

100 ILLUSTRATED ADS.—A collection of 100 illustrated ads. and a catalogue of hundreds of cuts, all designed especially for druggists. 2s.; with SPATULA 1 year, 6s.

SPATULA CUT CATALOGUE.—10th Edition. The best collection of half-tone and line cuts for advertising and illustrating purposes in the world. Thousands of beautiful illustrations. Price 2s.; with SPATULA 1 year, 6s.

THE SPATULA BEAUTY BOOK.—Full-page art pictures from photographs of sixty-five of the handsomest women in the world. Printed in monotone on the best 120-lbs. coated paper. Many are suitable for framing. Second Edition. Improved and enlarged. Price, post paid, 1s. 6d.; with THE SPATULA, 1 year, 6s.

(Cheques on local banks in Great Britain accepted. Make Money Orders payable to IRVING P. FOX, Treasurer.)

THE SPATULA, 14 Sudbury, Boston, Mass.

14th
Edition**THE EXTRA PHARMACOPOEIA**14th
EditionBy **MARTINDALE & WESTCOTT.**

Completely revised, Enlarged, and in great part rewritten.

Price 12s. net, post free 12s. 4d. (abroad 12s. 6d.). With Supplement,
"ORGANIC ANALYSIS CHART," complete 15s. 6d. net, post free 15s. 10d. (abroad 16s.)."The book emerged scathless from an evening spent in dipping into its contents."—
British Medical Journal."We recognise in this volume a difficult task which has been thoroughly well done . . .
successfully defies the finding of important omissions."—*Lancet.*"One of the oldest and, let it be added, one of the best."—*Pharmaceutical Journal.*"A marvel of conciseness. The book bristles with practical points."—*Chemist & Druggist.***LONDON: H. K. LEWIS, 136 Gower Street, W.C.**

Also of W. Martindale, 10 New Cavendish Street, W.

CITY OF LONDON COLLEGE,

WHITE STREET and ROPEMAKER STREET, MOORFIELDS, E.C.

LENT TERM commences JANUARY 8th.CLASSES and LABORATORY WORK in CHEMISTRY,
PHYSICS, BOTANY, and GEOLOGY. Special preparation for
the Examinations of the Pharmaceutical Society, the Conjoint
Board. Complete courses for University of London Examinations.
Full particulars gratis on application to DAVID SAVAGE, Secretary.ART OF DISPENSING. (8th Edition.) 550 pages, 6/-, by Post 6/4.
VETERINARY COUNTER PRACTICE. (5th Edition.) 4/-, by
Post 4/4.

THE CHEMIST-OPTICIAN. 4/-, by Post 4/3.

ELEMENTARY DISPENSING PRACTICE. 3/6, by Post 3/9.

DISEASES AND REMEDIES. (New Edition.) 3/-, by Post 3/3.

PRACTICAL METHODS OF URINE ANALYSIS. 2/6, by Post 2/9.

THE CHEMISTS' MEDICAL DICTIONARY. 2/6, by Post 2/8.

GUIDE TO PRELIMINARY EXAMINATIONS. 2/6, by Post 2/9.

MANUAL OF PHARMACEUTICAL TESTING. 2/6, by Post 2/9.

OPENING A PHARMACY. (New Edition.) 2/6, by Post 2/9.

THE CHEMIST AND DRUGGIST, 42 CANNON STREET, LONDON, E.C.

Telephone: 8470 Bank.

Telegrams: Neyroud, LONDON.

BERNARD BUCHWEITZ, WARSAW,

Advertising Contractors of Russian Newspapers and Periodicals.

FOR PARTICULARS, ESTIMATES, Etc.

Apply to the Representatives:—

NEYROUD & SONS Ltd., International Advertising Agency,

14-18 QUEEN VICTORIA STREET, LONDON, E.C.

POP**PAPERS & POSTCARDS**

To compete with anyone on QUALITY & PRICE.

YOUR OWN LABELS OR UNBRANDED.

Write for Specimen Labels, Samples, and Prices.

RAJAR LIMITED, Mobberley, England.**HUNTLEY, BOORNE & STEVENS, LTD****TIN WORKS, READING****COLOR
PRINTERS
ON TIN.****MAKERS OF HIGH-CLASS
DECORATED & PLAIN TIN BOXES
& SPECIALITIES FOR CHEMISTS**Quotations to samples
or descriptions.**CORRESPONDENCE INVITED**Telegrams
"Huntley Boorne" Reading. National Telegram Co.

Chemists' Printing.

Before placing your Orders for Labels, Cartons, and Advertising Printing, please write us for samples.

To be up to date with your Printed Matter is "To Command Success" in Business. We can assist you.

SEND 6D. FOR SAMPLES.

Samples sent to Colonies on receipt of 10/6, which amount we credit for a £5 order.

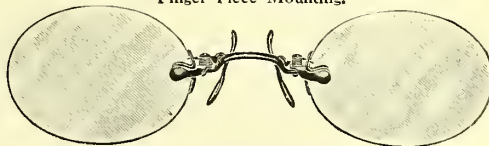
HARRISON & WAIDE

CHEMISTS' PRINTERS

KIRKSTALL ROAD, LEEDS, England.

THE "FIT-LITE"

Finger Piece Mounting.



In Gold Filled Only

HIGHEST QUALITY. LOW PRICE.
Samples on Approval. FITTING SETS SUPPLIED.

ANGLO-AMERICAN OPTICAL CO.,
47 Hatton Garden, E.C.

"Sylvax" Sensitised Postcards

Manufactured at our "Sylvax" Works, Tunbridge Wells.

CHEMISTS doing PHOTO BUSINESS should create Trade by using our POSTCARDS and PAPERS.

"SYLVAX" Bromide Postcards 16/6 per 1,000

" Caslight Postcards " "

" P.O.P. Postcards " "

" Self-Toning Postcards 20/6 "

Net. Cash. Carr. Paid.

ENLARGING use "SYLVAX" BRAND BROMIDE PAPER.

CONTACT PRINTING use "SYLVAX" BRAND BROMIDE PAPER.

Made in Matt. Velvet. and Glossy Surfaces.

Rolls or Cut Sizes. Quotations for Quantities.

REPRODUCTION. We are well equipped for executing finished Postcard and Pictorial Photo work for the Trade.

"SYLVAX" PHOTO WORKS, Upper Grosvenor Road, Tunbridge Wells. 3

Inquiries to OFFICE 47 High Street, Tunbridge Wells.

Nat. Tel. 85. Bankers: Lloyds. Telegrams: "Pearmund Tunbridge Wells."

STIPENDUM CORK STOPPERS

In all sizes suitable for
KALIS, CITRATES, DISPENSING, and all FLUIDS.

STIPENDUM COVERED POTS

THE BEST FOR FACE AND TOOTH POWDERS, PASTES, AND OINTMENTS.

GREASE PROOF.

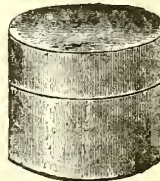
For Samples and particulars apply to
The . . .

Stipendum Stopper Co.
1 Newman Street,
LONDON, W.
Tel. No. 3766;
GERRARD.

DRUGGISTS' TURNED WHITE WOOD BOXES

(ENGLISH MANUFACTURE)

OF EVERY DESCRIPTION.



Pill Boxes.

These Boxes are made from Selected White Willow Wood & finely finished.

They are very cheap, from 1/- per gross upwards
WOODEN BOTTLES & VIALS also from 1/- per gross upwards.

Inventors & Patentees of . . .

Silicated Grease-proof Boxes.

A boon to Ointment Manufacturers.
A perfect substitute for a Covered Pot.



Wooden Vials.

Unbreakable and very light and saves half the duty in Countries where it is charged on the gross weight.

See that each Silicated Box is Stamped on the bottom with our Stamp, to avoid worthless imitations.

Price List and Samples on application.

ROGERS & CO., Carter St., Walworth, LONDON, S.E.

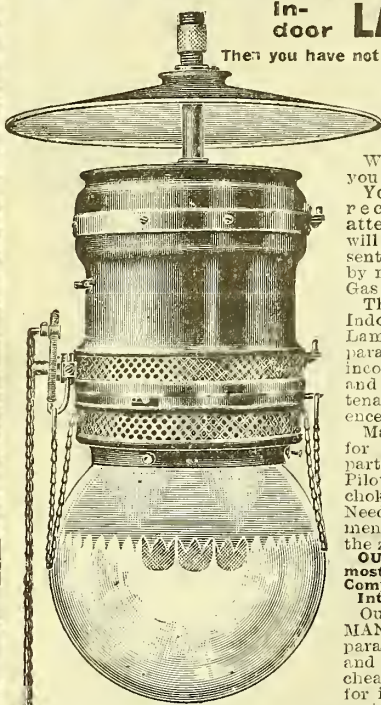


Have you seen the **BLOCK ARC**in-door **LAMP?**

Then you have not seen the World's

**MOST
WONDERFUL**

Gas Lamp.



Why not let us send you a sample?

Your request will receive prompt attention, when you will echo the kindly sentiments expressed by many hundreds of Gas Managers:

That the Block Indoor Inverted Gas Lamps are beyond parallel, and certainly incomparably the best and cheapest maintenance lamp in existence to-day.

May be turned down for night light. No parts to burn out. Pilot light cannot choke. Stop Cock and Needle Burner Adjustments are all outside the zone of heat.

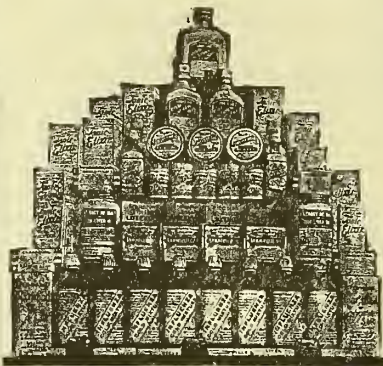
OUR LAMPS are the most widely imitated. Complimentary to US. Interesting to YOU.

Our LAMPS and MANTLES are incomparable for quality, and will be found the cheapest in the world for initial cost and maintenance.

No one can do better for you than WE. Write us, and we will send you our Catalogue post free. It will pay you.

"BLOCK LIGHT CO., Ltd.," 29 Milk St., Manchester.

The First Principle of your Business is to Attract the Public and thus Increase your Sales.



This is done by

attractive

Window

Display.

The Public appreciate a well-displayed Counter.

The "LONCOL" PATENT ADJUSTABLE SHOW-STAND is a silent salesman and a necessity in every business house where a display is essential. Made in all sizes and any number of tiers. Regulated to any height and yet perfectly rigid. Closes up in own base for purpose of transit.

PARTICULARS ON RECEIPT OF POSTCARD TO—

THE LONDON AND COLONIAL MANUFACTURING CO.

9 Mildmay Chambers, Union Court, E.C.

**CHEMISTS' SHOP FITTERS AND SHOP FRONT BUILDERS.****BOWLING
& SON,
SHOP FITTERS**Gun St., Brushfield St.
BISHOPSCATE, LONDON.

Best work only at popular prices. See the shops fitted in our modern style. Windows altered for the display of goods—a speciality. Send for estimates, free and compare prices for best work. Our Modern Windows will pay for themselves in three months. Write to us, and we will do the rest.

AUTOMATIC (Patent 6916) STILL

Made for heating by gas, steam, pressure, oil, or coal fire, and in various sizes producing from 6 pints to 10 gallons distilled water per hour.

NEW CATALOGUE

Now Ready,

POST FREE.

Fully Illustrated.

BROWN & SONMURIEL STREET,
CHARLOTTE STREET,
LONDON, N.**PRICES NETT.**

6 pints per hr. £ 18 6

7 " " 2 10 0

Combined Stand and

Gas Burners for these

two sizes, 3/3 each.

1½ gals. per hr. £3 15 0

2½ gals. per hr. £4 15 0

Stand and Burners, 18/6

4½ gals. per hr. £10 10 0

Stand and Gas Burners,

£15 0

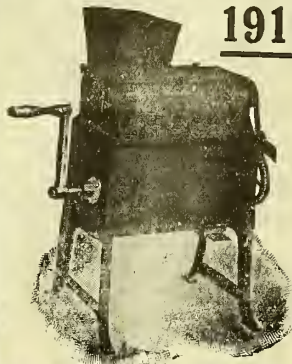
Steam heated any

pressure.

1½ gals. per hr. £3 10 0

6 " " £10 0 0

9 " " £12 10 0

1911 Mixing, Grinding & Sifting Machines.**60 SIZES & PATTERNS.**
Hand or Power.

Made by Chemists for the Chemical Trade.

Send for List.**Comet Chemical
Company, Ltd.**30 Victoria Buildings,
MANCHESTER.

THE NATURAL MINERAL WATER OF

CÉLESTINS
(VICHY ÉTAT)

For DISEASES of the KIDNEYS, GRAVEL, GOUT, RHEUMATISM, DIABETES, etc.

"GRANDE-GRILLE" For Diseases of the Liver and Biliary Organs, &c.**"HÔPITAL"** For Stomach Complaints, Indigestion, &c.**VICHY-ÉTAT PASTILLES** Two or three Pastilles after each meal facilitate digestion.

Price List, Show Cards, Dummy Bottles, Pamphlets, etc., on application.

CAUTION.—Each Bottle of VICHY from the STATE SPRINGS bears a neck label with the words "VICHY ÉTAT" and the name of the SOLE AGENTS:**INGRAM & ROYLE, LTD.,** BANCOR WHARF,
45 BELVEDERE RD., LONDON, E.C.
And at LIVERPOOL and BRISTOL.**A. MILLAR & CO., LTD., DUBLIN**
PURE ORANGE WINE(VINUM AURANTII, B.P.) Prepared in strict accordance with the Formula of the British Pharmacopœia.
London Agent: JAMES STIRTON, 23 ST. DUNSTON'S HILL, E.C.

(Wholesale only.)

Established
1855.**ROBINSON'S ORIGINAL**Excise Drawback on
Export Orders.**CONCENTRATED WATERS.**

STANDARDISED TO B.P. 1898.

When diluted in the proportion of one part to forty parts of water at 60° temperature, they faithfully represent the Medicated Waters of the British Pharmacopœia. They are always of uniform strength, and will keep good any length of time in any climate.

Aqua Amygd. Amar. Conc. (U.S.)	4/- per lb.	Aqua Cassiæ Conc.	4/- per lb.	Aqua. Ment. Virid. Conc.	4/- per lb.
" Anethi, Concent.	4/- "	" Flor Aurant.	8/6 "	" Pimentæ "	4/- "
" Anisi "	4/- "	" Sambuci Conc.	8/6 "	" Pulegii "	4/- "
" Camphoræ "	4/- "	" Fœniculi Conc.	4/- "	" Rosemarini "	4/- "
" Carui "	4/- "	" Ment. Pip. Conc.	4/- "	" Rosæ "	8/6 "
" Cinnam. Ver. Conc.	6/- "	" Ang. Conc.	6/- "	" Virgin "	10/6 "

The above may be had in ½-lb., ¾-lb., or 1 lb. Bottles and upwards through most of the Wholesale Drug Houses.
Each Bottle has the Inventor's Protection Label over the Cork, without which none are genuine.**SUPERIOR ORANGE WINE (Vin. Aurantii, B.P. 1898).**

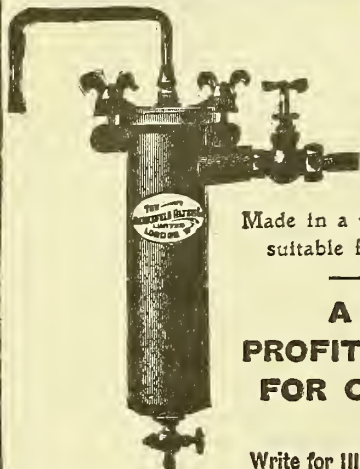
Samples of any of the above, sent free on application, from

ROBINSON & CO., LTD., Distillers and Brewers of British Wines, **CHURCH ST., PENDLETON, MANCHESTER.**
Telegraphic Address: "Champagne, Manchester." Telephone 138 Pendleton.

"BERKEFELD" FILTERS

GERMPROOF

Awarded 3 GRAND PRIX and 1 DIPLOMA OF HONOUR
at the BRUSSELS EXHIBITION, 1910.



SIMPLE
IN
CONSTRUCTION.

MOST
EASILY CLEANED.

Made in a variety of patterns
suitable for all purposes.

A VERY
PROFITABLE LINE
FOR CHEMISTS.

Write for Illustrated Catalogue.

THE
BERKEFELD FILTER
CO., Ltd.,
121 OXFORD STREET. LONDON, W.

"WINCO" OIL & SPIRIT BARREL PUMP

IN VARIOUS SIZES.

SIMPLE. RELIABLE.
DURABLE. CHEAP.

Best Workmanship.

In IRON or BRASS.

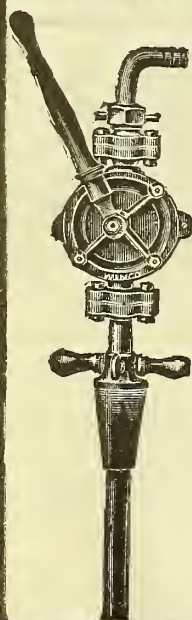
Can be used for any liquid,

WINE, SPIRITS,

" " OIL, " "

PETROLEUM, &c.

Ask for Illustrated Price List "C."



VEROX FLUID
BEEF.
ALL BEEF & ALL BRITISH.

30% Profit at least. :: Order now to secure Bonus.

TOOTH'S EXTRACT OF MEAT CO.

12 DUKE STREET, S.E.

ESTABLISHED 1865.

TELEPHONE, 7368 CENTRAL.

SAPONINE

(SOLUBLE),

MANUFACTURED BY

C. W. FIELD,

Cambrian Mills, LIVERPOOL.

Special Terms to Wholesalers and large Consumers.

Lofthouse & Saltmer

Wholesale and Export Drug Merchants, Manufacturing Chemists, HULL,

invite the attention of the Trade to the following well tried preparations which carry a big P.A.T.A. retail protected profit, and are well known and valued by the public in many parts of the country.

		PROTECTED RETAIL PRICE, 100Z. NET.	
Losall's Asthma Remedy.	Very effective Remedy for Asthma, Bronchitis, &c.	1/-	7/6
		6d.	3/6
Losall's Salt.	The popular Remedy for Eczema, Gout, Rheumatism, and Biliousness. Well advertised.	1/-	7/-
		1/6	10/6
Prepared Barley ("Crown" Brand).	Usual 1/- size lever lid tins, for children and invalids.		4/-
Malted Food.	Usual 1/- size, lever lid tins. Name and address free on 3 dozen.		4/6
	Special design label, with name and address on gross orders, if desired.		
Losall's Ballroom Floor Polish	Produces a Perfect, Smooth, Polished Surface beneath the Dancers' feet.	1/-	7/-

London Agents: F. NEWBERRY & SONS, Ltd.

JUNORA

WINE OF HEALTH

has a largely increasing demand. It is receiving great support from the Medical Profession.

Proprietors—HUMPHREY, TAYLOR & Co., Ltd., (Est. 1770), 45, New Oxford Street, London, W.C.

VITTEL

VOSGES,
FRANCE.

Vittel Spa has many attractions for visitors.

Full particulars on application

GRANDE SOURCE.

The TABLE WATER for Arthritis, Gout, and Kidney Troubles. . . .

SOURCE SALÉE.

The TABLE WATER for Constipation, Complaints of the Liver and Stomach, Gall Stones, Glycosuria, &c. . . .

10,000,000 BOTTLES SOLD ANNUALLY.

VITTEL, 12 Mark Lane, LONDON, E.C.

:: The NEW PURE LIQUORICE Juice ::

APOLLO.

The makers of the well-known brands of Pure Block Juices "V.B." and "B.X.," who are the largest manufacturers of Liquorice in the World, beg to notify the Trade that they now manufacture a high-class **PURE STICK JUICE** which they have placed on the market under their registered brand "**APOLLO.**"

The same guarantee of absolute Purity, which for the past sixty years has been given with their Block Juices, equally applies to their new stick "**APOLLO.**"

Can be obtained of all the leading wholesale Houses.



EVERY CUSTOMER WHO ENTERS YOUR PHARMACY
is potentially a purchaser of

OVALTINE

because it not only possesses marked nutrient tonic properties but is a deliciously flavoured general household beverage, which can be taken advantageously by young and old, in health or in sickness, and is so priced as to be a luxury within the reach of all.

We can send you some forcefully worded selling cards, which, displayed in your window or on your counter, will not fail to arouse interest in your customers. You can turn this interest into profit by a few words of personal recommendation.

Purchased under our Window Display and Cash Discount terms a profit yield of 50% is obtainable on your outlay. Few—if any—advertised proprietary lines give you a bigger margin, or offer you equal possibilities of rapid and increasing "turnover." Write us for new price list and display terms for "Ovaltine."

A. WANDER, Ltd., 1 & 3 Leonard Street, LONDON, E.C.

"ANNATTO"

WALTER VOSS & CO., Ltd., 4c Millwall, LONDON, E.

"SOLAZZI" LIQUORICE JUICE

THE CHEMISTS' BRAND.

'The Lancet' says: 'Of Standard Purity'

Recommended also by 'The British Medical Journal,' 'Health,' 'The Chemist and Druggist,' 'Food and Sanitation.'

Ask for SHOWCARDS and HANDBILLS. To be obtained of all Wholesale Houses.

TO SWELL YOUR BANK BALANCE

INCREASED RETURNS—THE ONLY WAY.

What nearly every Chemist to-day feels *most in need of* IS **INCREASED RETURNS**. His Profits are not what they were, his expenses constantly tend upwards, and competition was never so keen.

Diagnosis is easy, the remedy not always apparent, for to increase returns more custom must be brought in.

**DROP
US
A
POST-
CARD
TO-DAY**

for Sample
Packet
and Terms.

We are prepared to show you how we will
help you to largely increase your returns.

**IT WILL COST YOU
NOTHING !**

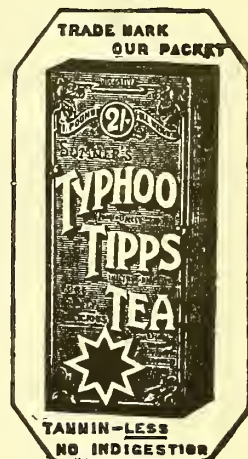
Then why not Investigate ?

SUMNERS *TYPHOO* TEA LIMITED.

HEAD OFFICE. (FOR ALL CORRESPONDENCE)

CASTLE ST BIRMINGHAM.

LONDON { CLEARING OFFICE: LLOYDS AVENUE HOUSE: E.C.
BONDED STORES: COMMERCIAL ROAD: E.



CEREGEN.

The cheapest and sweetest Proteid-Phosphate Food on the market. As now made it mixes readily with water. Ceregen comes cheaper to the public and returns you a larger profit (50% on return) than any similar article with which we are acquainted. Prices—20 ozs. 6/6; 10 ozs. 3/6; 5 ozs. 2/-; 2½ ozs. 1/3 each.

CEREGEN-COCOA.

This is a highly Concentrated Food and forms a pleasant beverage. It mixes readily with water or milk, and is wonderfully nourishing and sustaining. Protected at List Prices. Prices—9d., 1/4 and 2/6 per tin.

JOHN BELL, HILLS & LUCAS, Ltd.

"Oxford Works," Tower Bridge Road, LONDON, S.E.

Purveyors by Special Appointment



to H.I.M. The Empress of Russia.

Neave's Foods

For Infants,
Invalids and
the Aged.

NEAVE'S MILK FOOD.

Introduced for those requiring a Milk Food for Babies from Birth. It is absolutely free from starch, rich in fat and in composition very closely resembles Mother's Milk.

Instantly prepared by adding Hot Water only. MEDICAL REVIEW, Nov., 1910.—"When diluted with water, yields a preparation almost identical with human milk."

NEAVE'S FOOD.

"An excellent Food, admirably adapted to the wants of Infants."

SIR CHAS. A. CAMERON, C.B., M.D., etc.

Contains all the essentials for flesh and bone forming in an exceptional degree.

Nearly 90 Years Reputation.
GOLD MEDALS, LONDON: 1900 and 1906,
also PARIS.

NEAVE'S HEALTH DIET.

A delicious and nourishing milk and cereal diet for general use, acceptable to those who dislike the usual form of "gruel." Valuable in cases of general debility and dyspepsia, providing full nourishment with small exertion to the digestive organs.

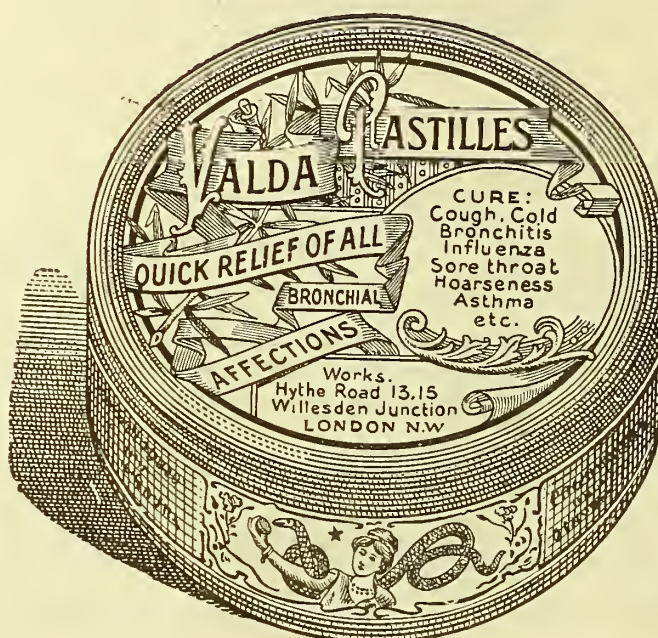
Awarded the Certificate of the Incorporated Institute of Hygiene, London.

Write for Price List, Showcards and Advertising Matter **JOSIAH R. NEAVE & Co.,** Fordingbridge, England.

Valda Pastilles

Up-to-Date Laboratories and Works,
13 Hythe Road, Willesden Junction, LONDON, N.W.

Retail
Price
 $1/1\frac{1}{2}$



Retail
Price
 $1/1\frac{1}{2}$

The
World-Renowned Cough Remedy.

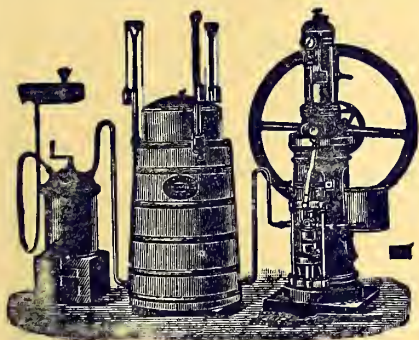
SPECIAL TERMS FOR CASH WITH ORDER.

1 dozen Boxes	-	-	£0	11	6
6 dozen Boxes	-	-	3	7	6
1 gross Boxes	-	-	6	12	0

Carriage Paid to any part of the United Kingdom.

SHOWCARD sent on application.

THE BEST HOUSE IN THE WORLD FOR ALL REQUIREMENTS OF THE MINERAL WATER TRADE



"THE NIAGARA."

This type is fast superseding all other makes, and is used in the leading manufacturing factories of the world.

**PRICES FROM
£18 10s.**

See Catalogue for other types.

Are all Fitted for Hand and Power.

NOTE.—We include all necessary Connecting Pipes free without extra charge, so that the machinery is ready for work upon arrival.

For larger sizes see Catalogue.

By our new process of Back Pressure Filling we can guarantee the

**HIGHEST QUALITY
SODA WATER at
60 lb. Pressure**
Thus saving **HALF YOUR GAS.**



"THE COMPACT."

For Use with Compressed Carbonic Acid Gas.

In use by the leading Chemists, Hotels, Hospitals, and Public Institutions throughout the United Kingdom.

*The Most Successful Machine of the Times.
The Perfection of Simplicity.
Automatic Carbonation.*

PRICES.

- | | |
|-----------------------------------------------------------------------------------------|---------|
| No. 1.—Capacity 1,200 dozen per day, including Filling Machines for Bottles and Syphons | £60 0 0 |
| No. 2.—Capacity 600 dozen per day, including Filling Machines for Bottles and Syphons | £48 0 0 |
| No. 3.—Capacity 300 dozen per day, including Filling Machines for Bottles or Syphons | £33 0 0 |

"THE CYLINDER" SODA WATER PLANT.

This is a Cheap Apparatus, designed for use with Compressed Carbonic Acid Gas, for serving Soda Water on the counter by means of a silver-plated counter stand.

PRICES FROM £15.

Specially suitable for Hotels, Chemists, Confectioners, Pastrycooks, &c.



BARNETT & FOSTER

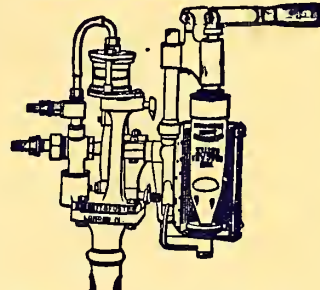
"Niagara Works,"

26¹ Eagle Wharf Rd.,

LONDON, N.

"THE IDEAL."

FILLING MACHINE, for "Codd's Niagara" and all kinds of Internal Stoppered Bottles.



With Syrup Pump ... £9 9 0
Without Syrup Pump £7 7 0

"THE GALWAY."

FILLING MACHINE FOR SYPHONS.

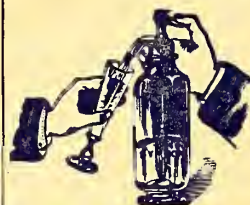
THE SIMPLEST OF ANY SYPHON FILLER YET INTRODUCED.

With Syrup Pump, £10 10 0
Without Syrup Pump, £5 5 0

Low Pressure Attachment whereby half the Carbonic Acid Gas is saved, with better product resulting. For use with any Filling Machine



BALL-STOPPERED BOTTLES, SYPHONS,



Cork & Crown-Cork Bottles

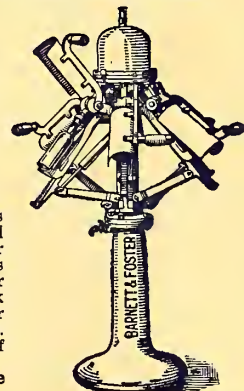
AT LOWEST RATES.

Prices upon Application.

"THE ROUNDABOUT" BACK PRESSURE FILLER.

For the Bottling of Aerated Beverages and Beers in specially economical and expeditious manner. Superior quality at lower pressure, saving gas and breakage in bottles with greater output from machine. Made in six sizes — three for Hand, three for Power. For all classes of Bottles. Provides THE Modern method of filling.

Send for Booklet, "All about the Roundabout."



UNDER EMINENT SCIENTIFIC SUPERVISION.

"APENTA"

THE BEST NATURAL
APERIENT WATER



Trade Prices:

Per Case.

25 Large Bottles	-	20/-
50 Small	„	32/6
100 Quarter	„	32/6

Carriage Paid
to any Railway
Station in the
United Kingdom.

5 per cent. Discount upon orders for 5 Cases.

TERMS:—Six Months' Credit from date of Invoice,
Net Cash.

THE APOLLINARIS COMPANY, LIM.,

4 Stratford Place, Oxford Street, London, W.



"CADBURY'S COCOA ESSENCE" has long since been accepted as one of the best preparations of cocoa on the market.

"It is undoubtedly of high value as a combined beverage and food, and, apart from its intrinsic value in these respects, it is rendered acceptable to many persons who, as a rule, are not fond of cocoa."

7 1/2 D

Per Quarter-pound Tin

British Medical Journal, September 9, 1911
CADBURY, BOURNVILLE